

REMEDIAL SITE ASSESSMENT DECISION - EPA REGION IV

Page 1 of 1

EPA ID: NCD003195963 Site Name: WESTINGHOUSE ELEC METER & LIGHT DIV

State ID:

Alias Site Names: WESTINGHOUSE ELEC METER & LIGHT DIV

City: RALEIGH

County or Parish: WAKE

State: NC

Refer to Report Dated: 05/14/2001

Report Type: SITE REASSESSMENT 001

Report Developed by:

DECISION:

☒ 1. Further Remedial Site Assessment under CERCLA (Superfund) is not required because:

☒ 1a. Site does not qualify for further remedial site assessment under CERCLA (No Further Remedial Action Planned - NFRAP)

☐ 1b. Site may qualify for action, but is deferred to:

☐ 2. Further Assessment Needed Under CERCLA:

2a. Priority: ☐ Higher ☐ Lower

2b. Other: (recommended action) NFRAP (No Further Remedial Action Planned)

DISCUSSION/RATIONALE:

The site received corrective action closure under the State of North Carolina RCRA program. All contamination was removed and no pathways exist at the site



Site Decision Made by: LUIS FLORES

Signature: _____

Date: 06/13/2001

**NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT**

MICHAEL F. EASLEY, GOVERNOR
William G. Ross Jr., SECRETARY
WILLIAM L. MEYER, DIRECTOR



May 14, 2001

Ms. Jennifer Wendel
NC Site Management Section
US EPA Region IV Waste Division
61 Forsyth Street, 11th Floor
Atlanta, Georgia 30303

NFRAP
6/13/01
LF

Subject: Site Re-Assessment Report
Westinghouse Electric Meter and Light
EPA ID: NCD 003 195 963
Raleigh, Wake County, North Carolina

Dear Ms. Wendel:

Westinghouse Electric Meter and Light is located on US 1 North just off the I-440 Beltline in Raleigh, North Carolina (Reference 1). The site's geographic coordinates are 38°48'33.77" north latitude and 78°36'18.97" west longitude (Reference 2).

The Westinghouse facility was built around 1953 and initially used only for assembly of meters until the plating equipment was installed. From 1954 to 1996 the facility manufactured and assembled all types of electrical metering devices for many residential and commercial applications (Ref. 1).

Process wastewaters at the Westinghouse facility were collected in two sewers: a cyanide sewer and an acid/alkali sewer. These sewers consisted of several in-ground rubber-lined concrete tanks. Cyanide wastewaters underwent chlorine oxidation. Acid/alkali wastewaters that contained chromium were treated with sodium bicarbonate to reduce the chromium from Cr+6 to Cr+3. After these treatment steps, the process wastewaters were mixed together and the pH of the final solution was adjusted. The combined stream was then fed to a flocculator and a clarifier, after which it was mixed with cleaning water solution and discharged to the Raleigh POTW. Precipitate from the clarifier was thickened in a filter press, and the final sludge was shipped off site (Ref. 3).

Prior to 1974, plating wastewater sludges were disposed of in an on-site impoundment. After 1974 and before installation of the filter press, plating sludges were fixed with sodium silicate and portland cement in the cement mixer and then stored in two in-ground concrete storage basins prior to shipment for disposal (Ref. 3).

1646 MAIL SERVICE CENTER, RALEIGH, NORTH CAROLINA 27699-1646
401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605
PHONE: 919-733-4996 \ FAX: 919-715-3605

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER - 50% RECYCLED/10% POST-CONSUMER PAPER

In July 1984, a site inspection (SI) sampling event was conducted by staff members of the NC Division of Health Services (NCDHS), Solid and Hazardous Waste Management Branch. Sampling included three samples from an on-site intermittent drainage ditch, three source samples, and one subsurface soil sample (Ref. 1).

An on-site intermittent drainage ditch was sampled at three locations during the SI: at the culvert upgradient (001267 and 001268), adjacent to the waste (001269 and 001270), and downgradient of the waste (001475 and 001476). Iron, manganese, and zinc were detected in all of the surface water samples (001267, 001269, and 001475). Chromium, lead, nickel, copper, iron, manganese, and zinc were detected in all three sediment samples (001268, 001270, and 001476). In addition to the above listed contaminants, arsenic (0.49 mg/l) was also detected in the upgradient sediment sample (001268) (Ref. 1). No samples were collected at or downstream of the probable point of entry (PPE) (Ref. 4).

Three source samples were collected on site: one from the sludge in the surface impoundment for metals (001477), one from the sludge in the surface impoundment for volatile organics (001334), and one from a pile in the chem-fixed sludge area (001479). No volatiles were detected in the source sample from the sludge in the surface impoundment (001334). Barium (212 mg/l), cadmium (665 mg/l), chromium (936 mg/l), lead (34 mg/l), nickel (148 mg/l), copper (1,010 mg/l), cyanide (200 mg/l), zinc (2,270 mg/l), iron (3,720 mg/l), and manganese (103 mg/l) were detected in the sludge in the surface impoundment (001477). Arsenic (0.49 mg/l), cadmium (243 mg/l), chromium (767 mg/l), lead (54 mg/l), nickel (495 mg/l), cyanide (260 mg/l), copper (3,248 mg/l), zinc (5,150 mg/l), iron (7,425 mg/l), and manganese (146 mg/l) were detected in the pile in the chem-fixed sludge area (001479) (Ref. 1).

One subsurface soil sample was collected on site from the impoundment below the sludge (001478) at a depth of 6.5 to 7 feet. Barium (45 mg/l), chromium (225 mg/l), lead (10 mg/l), nickel (24.5 mg/l), copper (288 mg/l), iron (38,100 mg/l), manganese (610 mg/l), and zinc (5.0 mg/l) were detected (Ref. 1), though none of these levels exceeded Federal and State benchmarks for the protection of human health and the environment (Ref. 5).

Based on the results of the SI and the fact that Westinghouse was an active facility, the site was deferred to the State's RCRA program for further action.

In 1984, Westinghouse applied to close the mixer, the two basins, and the drum storage area, and withdrew its Part A application to use the two basins for hazardous waste storage. Closure was certified by William L. Klotz, P.E. on July 18, 1985 and John S. Robinson, General Manager of Westinghouse's Raleigh Meter Division on August 5, 1985 (Ref. 3, Ref. 6, Ref. 7).

In December 1984, four downgradient groundwater monitoring wells were installed prior to the submittal of the closure plan for the surface impoundment. Initial groundwater sampling collected in December 1984 detected copper (0.14 mg/l), nickel (0.04 mg/l), cadmium (0.03 mg/l), and cyanide (0.10 mg/l) in well #2 (Ref. 8). The level of cadmium exceeded the Federal and State benchmark for the protection of human health and the environment (Ref. 4) and the NC groundwater standard (Ref. 9).

Sampling collected in January 1985 from the four monitoring wells detected copper (0.03 mg/l) and cyanide (0.23 mg/l) in well #2. The level of cyanide exceeded the NC groundwater standard (Ref. 9). By April 1985, cyanide was also detected in well #1 (0.02 mg/l) and well #3 (0.06 mg/l), and well #2 (0.19 mg/l) was still exceeding the NC groundwater standard (Ref. 9). In addition to cyanide, nickel (0.05 mg/l) was detected in well #1 and copper (0.02 mg/l) was detected in well #2 (Ref. 8).

On July 31, 1985, the general manager of Westinghouse informed NCDHS of completed closure of the surface impoundment on site. The unit had been closed and all the sludge from the bottom of the impoundment had been removed (Ref. 3). By April 1986, groundwater sampling in the monitoring wells showed all contaminants below detection limits or below applicable standards, with cyanide (0.14 mg/l) detected in well #2 and copper 0.12 mg/l in well #4 (Ref. 8).

In the latter part of 1987, Westinghouse experienced a spill of an unknown quantity of perchloroethylene. When the release was discovered, the material was contained and the saturated soil was removed in a 5' x 10' area to a depth of 1 ½ - 2 feet (Ref. 10). The area was inspected by the State, then backfilled. The area where the contaminated material was stockpiled was also inspected by the State following the removal to a secure landfill (Ref. 11).

By April 1996, the Westinghouse facility had ceased all manufacturing operations (Ref. 12). Currently the facility is owned by Parker-Lincoln, Inc. and is leased by the NC Department of Environment and Natural Resources to house various division offices (Ref. 13).

There are no residences, day care centers, or schools located on or within 200 feet of any portion of the former source areas. There are between 400 and 500 workers on the property in the original warehouse. However, based on previous removal information, all source and contaminated soils were removed from the site.

There are no groundwater users in the immediate area. Water is supplied to businesses and homes by the City of Raleigh's municipal water system.

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Ms. Jennifer Wendel

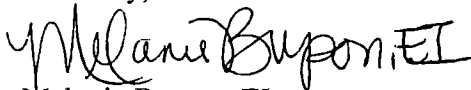
May 14, 2001

Development in the area of the site has resulted in the elimination of the drainage ditch network previously in place for the property. All overland flow from the site enters the City of Raleigh's stormwater runoff system. The probable point of entry (PPE) for the site is approximately 2500 feet southwest of the site into a qualifying wetland. However, due to the large commercial activity and development in the area, it is not possible to show attribution to the site.

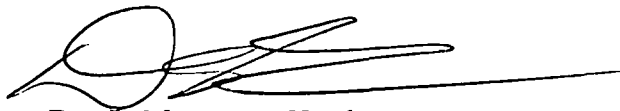
Based on a review of available file information and previous investigations of Westinghouse Elec. Meter & Light, the North Carolina Superfund Section recommends that the site be assigned a disposition of "No Further Action (NFA)" under CERCLA.

Please feel free to contact me at (919) 733-2801 ext. 317 or by e-mail at melanie.bryson@ncmail.net if you have any questions or comments.

Sincerely,



Melanie Bryson, EI
Environmental Engineer
NC Superfund Section



Dan LaMontagne, Head
Site Evaluation and Removal Branch
NC Superfund Section

CC: Scott Ross - File

CC: (Letter Only)

Charlotte Jesneck

Site Inspection Report

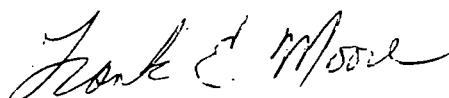
for

Westinghouse Electric Meter
and
Light Division
US #1 North
Raleigh, N.C.

NCD 003195963

by

Frank E. Moore
Geologist, 3012

A handwritten signature in cursive script that reads "Frank E. Moore".

August 28, 1984

Summary

Westinghouse, located off the Beltline on US #1 North in Raleigh, N.C., manufactures all types of electric metering devices. They have been at this location--manufacturing and assembling meters--since 1954. This is a well established area with commercial/industrial and residential sections all believed to be serviced with city water and sewer.

Westinghouse notified us, through a CERCLA 103C, for the disposal of treated electroplating sludge on-site in a diked impoundment. From information received from the Company, we have concluded that on-site disposal took place from about 1954 until 1973. From 1974 until 1980, the metal plating sludges were generally drummed and sent to Wake County landfills nearby. The majority of the sludge disposed of during this time was "fixed" with sodium silicate and cement. It is estimated that 2,000 cubic yards of fixed and unfixed metal plating sludges remain on the site today.

A medium priority for site inspection was recommended in the PA and the site inspection was scheduled for July 20, 1984. The objectives of the SI were to confirm the presence of a hazardous waste disposal area and to sample for potential off-site migration routes. Ten (10) samples were taken at the site including sludge, soil, surface water and sediment samples. Based on these samples, we concluded there was a hazardous waste disposal area. There didn't appear to be any significant impact on the environment (soil, groundwater or surface water) and it presents no public health risks at this time.

Depending upon the outcome of discussions with the RCRA program, this site may be addressed as part of the RCRA regulations. However, if the site remains in CERCLA, it would be easy enough to initiate a clean-up of the site. This site will need to be addressed in the future and may deserve a low priority for follow-up at this time.

Location

The exact location for Westinghouse Electric Meter and Light Division metal plating sludge disposal area is as follows:

Westinghouse Electric
Box 9533
US #1 North
Raleigh, N.C. 27611
Wake County

Lat 35° 49' 30"
Long 78° 36' 30"

The plant occupies the east corner of the intersection of US #1 North and the Raleigh Beltline.

The waste water treatment facility and disposal area is located just off the SW corner of the main plant building.

The diked sludge disposal impoundment was overgrown with Kudzu at the time of our site inspection. Attached is a USGS 7.5° Quad map showing the location of the facility and the surrounding area. (Attachment A)

Site Layout

Entrance to the facility is from the north side of the property, off of US #1 North. The main building (office and manufacturing facility) sits parallel to US #1 in a NE to SW orientation. The Raleigh Beltline runs parallel to the western property line of Westinghouse. The main railroad lines border the property on the southern side. The entire property is reported as covering some 100 acres which affords Westinghouse generous buffer zones on all sides of the facility.

PA

The waste water treatment plant and sludge processing and disposal areas are just off the SW corner of the main building. The area drains southward towards the Beltline and railroad tracks. The drainage receives some surface water from the facility area before exiting a culvert near the waste water treatment plant. Historical information indicates that the drainage was formed as an intermittent stream (unnamed) and wet weather spring. (Est. flow 1 gal/min.)

Below and to the west of the waste water treatment facility is the area used for past metal plating sludge disposal. Originally, sludge was treated and pumped into about a 100' diked impoundment. Later a cement mixer was added with sludge set-up areas (concrete areas) to facilitate their chem-fix operation. The sludge impoundment is easily recognized by the overgrowth of Kudzu vines covering the impoundment.

The surrounding area is heavily commercialized with some urban residential areas nearby. The entire area, however, is reportedly serviced by city sewer and water. (Sketch map of Impoundment Area - Attachment B)

Ownership and Site Use History

Westinghouse Electric Corporation has been the sole owner and operator of the facility of US #1 North in Raleigh, N.C., according to the Company.

The facility was built around 1953 and for the first year or so was used only for assembly of meters until the plating equipment was installed. From 1954 to present the facility has manufactured and assembled all types of electrical metering devices for many residential and commercial applications. Plating sludges were disposed of on site from 1954 until 1973. In 1973 modifications in the sludge treatment process were completed and the treated sludge was drummed and landfilled in Wake County. The Company has estimated that between 40 to 60 drums per month were landfilled off site between mid 1974 and the end of 1975.

Other potential hazardous wastes including solvents from degreasing still bottoms, paint sludges, and precipitates from plating tanks were also believed to have been drummed and disposed of off site in the County landfill prior to 1976.

From 1976 until 1980, plating sludges were chem-fixed, drummed and disposed of off site in a landfill. Other solvent and paint residues were shipped to various recyclers and disposers and not landfilled.

Permit and Regulatory History

According to our information Westinghouse has a N.C. Permit #3637 for Air Pollution Abatement Facilities and/or Emission Sources. They also have a SPCC plan and are a RCRA generator facility.

In 1975 the N.C. Solid Waste Program requested that Westinghouse stop disposing of drummed plating sludge in the landfill. A "chem-fixed" process was incorporated into the treatment facility and again the fixed sludge was allowed by the State to be landfilled. No fines or penalties were assessed.

In 1980, RCRA regulations mandated that proper disposal of plating sludges be to a secure landfill. Westinghouse tried, unsuccessfully, for about two years to have their waste delisted as non-hazardous. However, due to higher than allowed Cyanide levels, the delisting was denied.

All plating wastes are manifested to SCA at this time under RCRA. Other solvent/paint wastes are also properly disposed of under RCRA.

Remedial Actions

No remedial actions have taken place at Westinghouse due to the disposal of their plating sludges in the impoundment. No complaints or environmental problems have ever been noted due to this disposal on site.

Trip Report

Mr. Dave Daugherty, Senior Engineer at the Westinghouse facility, was the site contact before, during and after the site inspection on July 20, 1984. Mr. Daugherty also provided information requested for completing the PA report.

On the morning of July 20, 1984, the following participated in the site inspection at Westinghouse:

Frank Moore	Geologist	DHR, 3012
Len Bramble	Engineer	DHR, 3012
Lee Crosby	Chemist	DHR, 3012
Dave Daugherty	Engineer	Westinghouse, Raleigh, NC
Paul Jack	Engineer	Westinghouse, Pittsburg, PA

Permission for the SI was granted by Mr. Daugherty who also wished to receive splits of all samples taken during the SI. Mr. Jack was acting as an observer for Westinghouse and took notes during the inspection. Photographs were planned during the SI but due to problems with the film none are available. (I didn't load the camera correctly)

Sampling strategy was discussed and sampling began about 0930 hours. Sampling was done in accordance with recognized EPA protocol and transported to the lab using chain-of-custody procedures. A total of ten (10) samples were taken:

<u>Map #</u>	<u>Sample #</u>	<u>Description</u>
#1	001267	At Culvert, up-gradient drainage water, metals
#2	001268	At Culvert, up-gradient drainage sediment, metals
#3	001269	Adjacent to waste, drainage water, metals
#4	001270	Adjacent to waste, drainage sediment, metals
#5	001475	Down-gradient, drainage water, metals
#6	001476	Down-gradient, drainage sediment, metals
#7	001477	Impoundment, sludge composite 0-6', metals
#8	001334	Impoundment, sludge composite 0-6', organics
#9	001478	Impoundment, soil below sludge, metals
#10	001479	Chem-fixed sludge area, metal

The results of these samples are attached. The drainage water and sediment samples do not indicate any significant migration of the waste has occurred. The pieces of chem-fixed material in the drainage may have influenced the pH of the water by raising it slightly from 5.9 up-stream to 6.4 down-stream. (pH from field measurements)

The waste samples did show high total metal levels but none of the metals showed significant concentrations when extracted. No organic solvents were detected in the sludge sample from the impoundment. Cyanide values were high in the sludge.

The soil sample taken from below the sludge in the impoundment also showed the presence of metals in minor concentrations. It should also be noted that even after a very rainy spring and summer the soil was very dry. The sludge was saturated with water, but appeared to almost form a cap over the soil. There didn't appear to be a great deal of vertical movement of water. A background soil sample would have to be taken before a complete comparison of the soil's metal levels could be compared.

Photographs were planned for the SI, but because of film problems no pictures are available from the SI.

Environmental Setting

Topographic Map Attached

The disposal area is off on the SW corner of the facility. The waste area is overgrown with Kudzu and through the years have built up a 4" layer of organic humus material. Some small "critters" were observed in the humus layer. The area around the impoundment is well maintained (grass cut regularly) and a security fence is about 40'-50' from the impoundment on the south and east sides. The drainage, which runs along north to south just to the east of the disposal area, reportedly receives run-off from the facility before exiting a culvert at the waste water treatment plant. (Sampling point #1 and #2) This drainage was running at an estimated 1 gallon/minute and "dried-up" approximately 400' - 500' downstream from the impoundment, still on Westinghouse property. The area outside of the fence is forested with mixed pines and hardwoods. As before, US #1 and the Raleigh Beltline borders the facility on the North and West. The unnamed drainage empties into Crabtree Creek approximately .5 miles away.

The land use in the immediate area surrounding the site would be considered urban commercial/industrial. The topo map does show several residential subdivisions approximately 1/2 mile away. This entire area is reportedly served by city water and sewer.

The unlined impoundment lies in weathered mica and hornblende gneiss. The saprolite clayey soils are generally mapped as firm clayey soils on felsic rocks and classified as Cecil-Applying-Pacolet soils. Bedrock would probably be fairly shallow in this area.

The site around the impoundment slopes to the south, same as the drainage flow.

No additional subsurface information was available at the time of this writing, but Westinghouse might be able to furnish some additional information from foundation studies used in the construction of the plant buildings. No wells are reported in the area, so groundwater studies were also not available.

Based on the available information, it is the opinion of the author that this disposal has not caused any significant impact on the environment surrounding the impoundment. Also, there doesn't appear to be a health risk associated with the disposal area as it exists at this time. A low priority for follow-up work may be recommended for this site.

Waste Types and Quantities

Mr. Dave Daugherty of Westinghouse reports that original estimates of the waste on site to be high--3700 cubic yards. Recent measurements indicate about 950 cubic yards of unfixed sludge present in the impoundment and about the same volume remains of the chem-fixed sludge and contaminated soil from grading associated with the fixed operations. The total volume of metal plating sludge wastes is estimated to be about 2000 cubic yards of material.

Additional waste was disposed of off site and is still being investigated.

References

- Raleigh East, N.C. USGS 7.5' Quad Map
1968 Photo Revised 1973
- Impoundment Sketch Map with Sampling Locations
- Copy of Field Notes
- Copy of Westinghouse Letter - August 15, 1984
Daugherty to Moore
- Lab Results with Chain-of-Custody Form
- Consent for Access to Property Form
- Receipt for Samples Form
- SI Form 2070-13 with Instructions
- Information in Delisting Petition from RCRA Files



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER
NC | D003195963

II. SITE NAME AND LOCATION

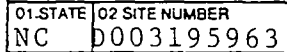
01 SITE NAME (Legal, common, or descriptive name of site) Westinghouse Electric Meter-Light Div. US #1 N		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER			
03 CITY Raleigh	04 STATE NC	05 ZIP CODE 27603	06 COUNTY Wake	07 COUNTY CODE 092	08 CONG DIST 04
09 COORDINATES LATITUDE ^{CCN} 6-3-84 35 49 30.0 LONGITUDE 07 8 36 30.0		10 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER <input type="checkbox"/> G. UNKNOWN			

III. INSPECTION INFORMATION

01 DATE OF INSPECTION 7, 20 84 MONTH DAY YEAR		02 SITE STATUS <input checked="" type="checkbox"/> ACTIVE <input type="checkbox"/> INACTIVE	03 YEARS OF OPERATION 1953 | UNKNOWN BEGINNING YEAR ENDING YEAR		
04 AGENCY PERFORMING INSPECTION (Check all that apply) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. MUNICIPAL <input type="checkbox"/> D. MUNICIPAL CONTRACTOR <input checked="" type="checkbox"/> E. STATE <input type="checkbox"/> F. STATE CONTRACTOR <input type="checkbox"/> G. OTHER 3012 Group (Name of firm) (Specify)					
05 CHIEF INSPECTOR Frank E. Moore		06 TITLE Geologist		07 ORGANIZATION DHR	08 TELEPHONE NO. 919 733-2178
09 OTHER INSPECTORS Len Bramble		10 TITLE Engineer		11 ORGANIZATION DHR	12 TELEPHONE NO. 919 733-2178
Lee Crosby		Chemist		DHR	919 733-2178
					()
					()
					()
13 SITE REPRESENTATIVES INTERVIEWED Dave Daugherty		14 TITLE SR. Eng.	15 ADDRESS Westinghouse US #1 N		16 TELEPHONE NO. 919 834-5271
Paul Jack		Proj. Eng.	Raleigh, N. C.		412 255-3616
W. A. Peebles		Plt. Mgr.			919 834-5271
					()
					()
					()
17 ACCESS GAINED BY (Check one) <input checked="" type="checkbox"/> PERMISSION <input type="checkbox"/> WARRANT		18 TIME OF INSPECTION 0900		19 WEATHER CONDITIONS Sunny, Clear, Light Breeze	

IV. INFORMATION AVAILABLE FROM

01 CONTACT Dave Daugherty		02 OF (Agency/Organization) Sr. Eng. - Westinghouse		03 TELEPHONE NO. 919 834-5271	
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM Frank E. Moore		05 AGENCY DHR	06 ORGANIZATION S & HW	07 TELEPHONE NO. 919/733-2178	08 DATE 8 27 84 MONTH DAY YEAR



☐ I. HIGHLY VOLATILE
☐ J. EXPLOSIVE
☒ K. REACTIVE
☐ L. INCOMPATIBLE
☐ M. NOT APPLICABLE



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NC D003195963

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 04 NARRATIVE DESCRIPTION

Based on sample results it would be hard to make any conclusions at this time. However, there doesn't appear to be any major impact on G-W from this disposal.

01 ☒ B. SURFACE WATER CONTAMINATION 02 ☒ OBSERVED (DATE: 7-20-84) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 04 NARRATIVE DESCRIPTION

Pieces of "Chem-fixed" sludge were visible in the drainage (8" - 10" and smaller chunks). However, drainage water samples up-gradient and down-gradient were comparable, O.K.

01 ☐ C. CONTAMINATION OF AIR 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 04 NARRATIVE DESCRIPTION

N/A

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 04 NARRATIVE DESCRIPTION

N/A

01 ☒ E. DIRECT CONTACT 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 04 NARRATIVE DESCRIPTION

Not likely - although the waste is in the "open". Area is fenced and site has security.

01 ☒ F. CONTAMINATION OF SOIL 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: (Acres) 04 NARRATIVE DESCRIPTION

Just the soil in contact with the sludge pile appears to be ^{susceptible} to possible contamination.

01 ☐ G. DRINKING WATER CONTAMINATION 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 04 NARRATIVE DESCRIPTION

N/A

01 ☐ H. WORKER EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: 04 NARRATIVE DESCRIPTION

None reported -

01 ☐ I. POPULATION EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 04 NARRATIVE DESCRIPTION

N/A



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NC D003195963

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None observed

01 ☒ K. DAMAGE TO FAUNA 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

None observed

01 ☐ L. CONTAMINATION OF FOOD CHAIN 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

N/A

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES 02 ☒ OBSERVED (DATE: 7-20-84) ☐ POTENTIAL ☐ ALLEGED
(Spills/Runoff/Standing liquids, Leaking drums)
03 POPULATION POTENTIALLY AFFECTED: 04 NARRATIVE DESCRIPTION

Sludge is in open diked area. Appears that run-off of surface water has transported some sludge.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

N/A

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

N/A

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Done with the knowledge of the State

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

None

III. TOTAL POPULATION POTENTIALLY AFFECTED: 0

IV. COMMENTS

Past disposals off-site in landfills will create sites in Knightdale landfill and Rowlands landfill - Wake County

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

SI on 7-20-84
Westinghouse Letter Daugherty to Moore 8-15-84
Branch - Solid Waste Files 1975-6



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NC D003195963

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
<input type="checkbox"/> A. NPDES				
<input type="checkbox"/> B. UIC				
<input checked="" type="checkbox"/> C. AIR				NRCO - DEM
<input checked="" type="checkbox"/> D. RCRA				Generator, Treater, Storer
<input type="checkbox"/> E. RCRA INTERIM STATUS				
<input type="checkbox"/> F. SPCC PLAN				
<input type="checkbox"/> G. STATE (Specify)				
<input type="checkbox"/> H. LOCAL (Specify)				
<input checked="" type="checkbox"/> I. OTHER (Specify)				SPCC PLAN
<input type="checkbox"/> J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE	04 TREATMENT (Check all that apply)	05 OTHER
<input checked="" type="checkbox"/> A. SURFACE IMPOUNDMENT	2,000	Cu Yd	<input type="checkbox"/> A. INCINERATION	<input checked="" type="checkbox"/> A. BUILDINGS ON SITE
<input checked="" type="checkbox"/> B. PILES	included in above		<input type="checkbox"/> B. UNDERGROUND INJECTION	
<input type="checkbox"/> C. DRUMS, ABOVE GROUND			<input checked="" type="checkbox"/> C. CHEMICAL/PHYSICAL	
<input type="checkbox"/> D. TANK, ABOVE GROUND			<input type="checkbox"/> D. BIOLOGICAL	
<input type="checkbox"/> E. TANK, BELOW GROUND			<input type="checkbox"/> E. WASTE OIL PROCESSING	
<input type="checkbox"/> F. LANDFILL			<input type="checkbox"/> F. SOLVENT RECOVERY	
<input type="checkbox"/> G. LANDFARM			<input type="checkbox"/> G. OTHER RECYCLING/RECOVERY	
<input type="checkbox"/> H. OPEN DUMP			<input type="checkbox"/> H. OTHER (Specify)	
<input type="checkbox"/> I. OTHER (Specify)				06 AREA OF SITE 1 (Acres)

07 COMMENTS

The volume includes chem-fixed sludge pile (cement) as well as original treated sludge that when into a diked impoundment. Westinghouse owns many acres at this facility but only about one (1) acre is involved in the disposal area.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)	<input type="checkbox"/> A. ADEQUATE, SECURE	<input checked="" type="checkbox"/> B. MODERATE	<input type="checkbox"/> C. INADEQUATE, POOR	<input type="checkbox"/> D. INSECURE, UNSOUND, DANGEROUS
02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.				
The original impoundment and sludge appears to be intact but due to activity around the chem-fix area, surface run-off has transported some of the fixed material into the drainage. The impoundment is unlined.				

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
02 COMMENTS The area is fenced off and is off to one side of the facility. The area is open with kudzu covering the waste. Only trespassers would be affected.

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

RCRA Branch Files
Westinghouse Letter 8-15-84, Daugherty to Moore
SI visit 7-20-84



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NC 0003195963

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)			02 STATUS			03 DISTANCE TO SITE	
	SURFACE	WELL	ENDANGERED	AFFECTED	MONITORED		
COMMUNITY	A. <input checked="" type="checkbox"/>	B. <input type="checkbox"/>	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>	A. _____ (mi)	
NON-COMMUNITY	C. <input type="checkbox"/>	D. <input type="checkbox"/>	D. <input type="checkbox"/>	E. <input type="checkbox"/>	F. <input type="checkbox"/>	B. _____ (mi)	

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☐ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING
(Other sources available)
COMMERCIAL, INDUSTRIAL, IRRIGATION
(No other water sources available)

☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION
(Limited other sources available)

☒ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER <u>0</u>		03 DISTANCE TO NEAREST DRINKING WATER WELL _____ (mi)		
04 DEPTH TO GROUNDWATER _____ (ft)	05 DIRECTION OF GROUNDWATER FLOW _____	06 DEPTH TO AQUIFER OF CONCERN _____ (ft)	07 POTENTIAL YIELD OF AQUIFER _____ (gpd)	08 SOLE SOURCE AQUIFER <input type="checkbox"/> YES <input type="checkbox"/> NO

09 DESCRIPTION OF WELLS (including usage, depth, and location relative to population and buildings)

10 RECHARGE AREA		11 DISCHARGE AREA	
<input type="checkbox"/> YES	COMMENTS	<input type="checkbox"/> YES	COMMENTS
<input type="checkbox"/> NO		<input type="checkbox"/> NO	

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☒ A. RESERVOIR, RECREATION
DRINKING WATER SOURCE

☐ B. IRRIGATION, ECONOMICALLY
IMPORTANT RESOURCES

☐ C. COMMERCIAL, INDUSTRIAL

☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
<u>Unnamed drainage to Crabtree Creek</u>	<input type="checkbox"/>	<u>0.5 - .75</u> (mi)
_____	<input type="checkbox"/>	_____ (mi)
_____	<input type="checkbox"/>	_____ (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN			02 DISTANCE TO NEAREST POPULATION
ONE (1) MILE OF SITE A. <u>Hundreds</u> NO. OF PERSONS	TWO (2) MILES OF SITE B. <u>Thousands</u> NO. OF PERSONS	THREE (3) MILES OF SITE C. _____ NO. OF PERSONS	<u>On-Site</u> (mi)
03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE <u>Hundreds</u>			04 DISTANCE TO NEAREST OFF-SITE BUILDING <u>0.15</u> (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

This site is at the intersection on two major roadways in Raleigh, US #1 and the Beltline around downtown Raleigh. Along the highways it is commercialized and several subdivisions are within 1/2 mile of the site. Urban commercial - urban residential.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NC D003195963

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

EST. Saprolite Clays (red)
☐ A. $10^{-6} - 10^{-5}$ cm/sec ☒ B. $10^{-4} - 10^{-5}$ cm/sec ☐ C. $10^{-4} - 10^{-3}$ cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-5} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-5}$ cm/sec) ☐ C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK

_____ (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

Est. .5-1 (ft)

05 SOIL pH

06 NET PRECIPITATION

4.5" (in)

07 ONE YEAR 24 HOUR RAINFALL

4" - 6" (in)

08 SLOPE

SITE SLOPE
2-3 %

DIRECTION OF SITE SLOPE

South

TERRAIN AVERAGE SLOPE

1 - 2 %

09 FLOOD POTENTIAL

SITE IS IN _____ YEAR FLOODPLAIN

10

☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE

OTHER

A. _____ (mi)

B. _____ (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

_____ (mi)

ENDANGERED SPECIES: _____

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

RESIDENTIAL AREAS; NATIONAL/STATE PARKS,
FORESTS, OR WILDLIFE RESERVES

AGRICULTURAL LANDS
PRIME AG LAND AG LAND

A. .1 (mi)

B. .5 (mi)

C. _____ (mi) D. _____ (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The disposal area is off on the SW corner of the facility. The waste area is overgrown with kudzu. The area around the disposal area is well maintained (grass cut regularly) and a security fence is near (40') the impoundment on the south and east sides. A drainage area, which does receive run-off from the facility, runs along just to the east of the impoundment (50'). The drainage was running at an estimated 1 gal/min. and "dried-up" approximately 400' - 500' down stream from the impoundment, still on Westinghouse property. The area outside of the fence is forested in mixed pines and hardwoods. As before, US #1 and the Beltline border the property on the North and West.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

USGS 7.5' Quad - Raleigh East, N. C. Photo Revised 1973
SI visit 7-20-84
N.C. infor Atlas



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NC D003195963

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER	3	N.C. Health Services Lab - Raleigh, N. C.	4-5 weeks
WASTE	3	Bath Bldg.	
AIR		all rec'd by 8-22-84	
RUNOFF			
SPILL			
SOIL	1		
VEGETATION			
OTHER Sediment	3		

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
pH, Cord., Temp.	Surface water measurements - Up-gradient-adjacent-down-gradient of waste area along drainage next to impoundment. The waste was augered through to determine the approximate depth - approx. 6 feet.
	Waste area measured and estimated at 2,000 cu yd by Westinghouse.

IV. PHOTOGRAPHS AND MAPS

01 TYPE <input type="checkbox"/> GROUND <input type="checkbox"/> AERIAL	02 IN CUSTODY OF <u>Camera Problems - No photos on SI</u> <small>(Name of organization or individual)</small>
03 MAPS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	04 LOCATION OF MAPS <u>NC 3012 Office-Sketch Maps</u>

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

SI visit 7-20-84
Lab results
Westinghouse Letter 8-15-84 Daugherty to Moore



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NC 0003195963

II. CURRENT OWNER(S)

01 NAME Westinghouse Company			02 D+B NUMBER		08 NAME Westinghouse Electric Co.			09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) US #1 North			04 SIC CODE 3545		10 STREET ADDRESS (P.O. Box, RFD #, etc.) Gateway Center - Stanwix Street			11 SIC CODE	
05 CITY Raleigh		06 STATE NC	07 ZIP CODE 27603		12 CITY Pittsburgh		13 STATE PA	14 ZIP CODE 15222	
01 NAME			02 D+B NUMBER		08 NAME			09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		12 CITY		13 STATE	14 ZIP CODE	
01 NAME			02 D+B NUMBER		08 NAME			09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		12 CITY		13 STATE	14 ZIP CODE	
01 NAME			02 D+B NUMBER		08 NAME			09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		12 CITY		13 STATE	14 ZIP CODE	

III. PREVIOUS OWNER(S) (List most recent first)

01 NAME			02 D+B NUMBER		01 NAME			02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		05 CITY		06 STATE	07 ZIP CODE	
01 NAME			02 D+B NUMBER		01 NAME			02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		05 CITY		06 STATE	07 ZIP CODE	
01 NAME			02 D+B NUMBER		01 NAME			02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		05 CITY		06 STATE	07 ZIP CODE	

IV. REALTY OWNER(S) (If applicable, list most recent first)

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

RCRA Part "A"



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NC D003195963

II. CURRENT OPERATOR (Provide if different from owner)				OPERATOR'S PARENT COMPANY (If applicable)			
01 NAME SAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER					
III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)				PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)			
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					
IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)							



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NC D003195963

II. ON-SITE GENERATOR

01 NAME Westinghouse	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE

III. OFF-SITE GENERATOR(S)

01 NAME N/A	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

NC 0003195963

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ D. SPILLED MATERIAL REMOVED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ E. CONTAMINATED SOIL REMOVED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ F. WASTE REPACKAGED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☒ G. WASTE DISPOSED ELSEWHERE
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

Mid 1974 to end of 1975 - plating sludge drummed and disposed in Knightdale landfill. May 1978 to 1980 disposed chem-fixed sludge in Rowlands landfill

01 ☐ H. ON SITE BURIAL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ I. IN SITU CHEMICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ J. IN SITU BIOLOGICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ K. IN SITU PHYSICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ L. ENCAPSULATION
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ M. EMERGENCY WASTE TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ N. CUTOFF WALLS
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ P. CUTOFF TRENCHES/SUMP
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ Q. SUBSURFACE CUTOFF WALL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
NC D003195963

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ S. CAPPING/COVERING
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ T. BULK TANKAGE REPAIRED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ U. GROUT CURTAIN CONSTRUCTED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ V. BOTTOM SEALED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ W. GAS CONTROL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ X. FIRE CONTROL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ Y. LEACHATE TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ Z. AREA EVACUATED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ 1. ACCESS TO SITE RESTRICTED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ 2. POPULATION RELOCATED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

01 ☐ 3. OTHER REMEDIAL ACTIVITIES
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis reports)

Westinghouse Letters 12-22-75 H Matthews to Strickland
8-15-84 Daugherty to Moore



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NC	D003195963

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☒ YES ☐ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

In 1975 the State's Solid Waste Program notified Westinghouse that they could not dispose of their plating sludge in the Knightdale landfill. The State then worked with Westinghouse in developing a chem-fixed method with cement.

The ~~Chem~~-fixed sludge was then disposed of in the Rowlands landfill.

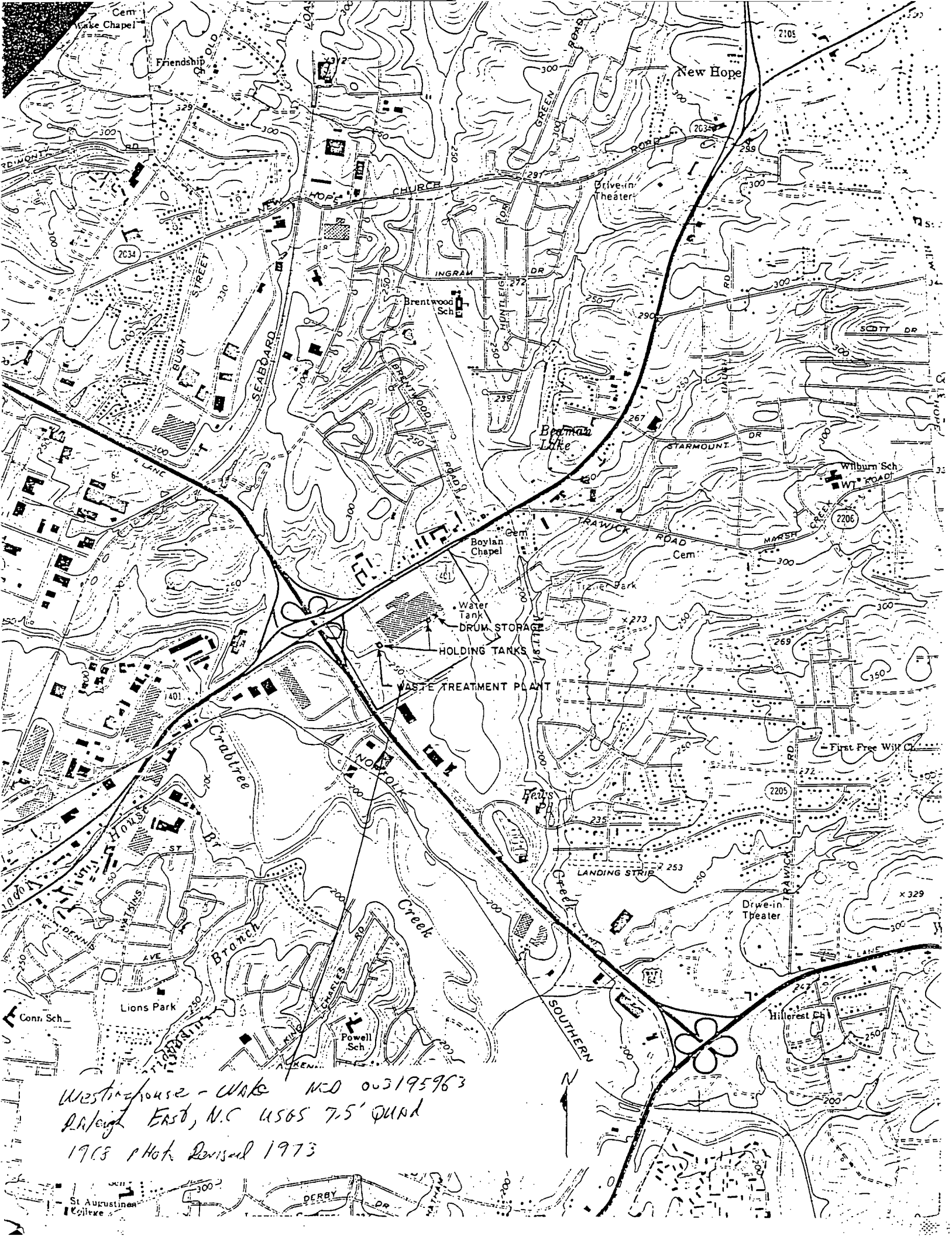
This disposal was stopped when RCRA started.

The waste plating sludge was disposed of on site from around 1955 until 1973.

Note: Some waste solvents were also drummed and disposed of off-site (ldfl).

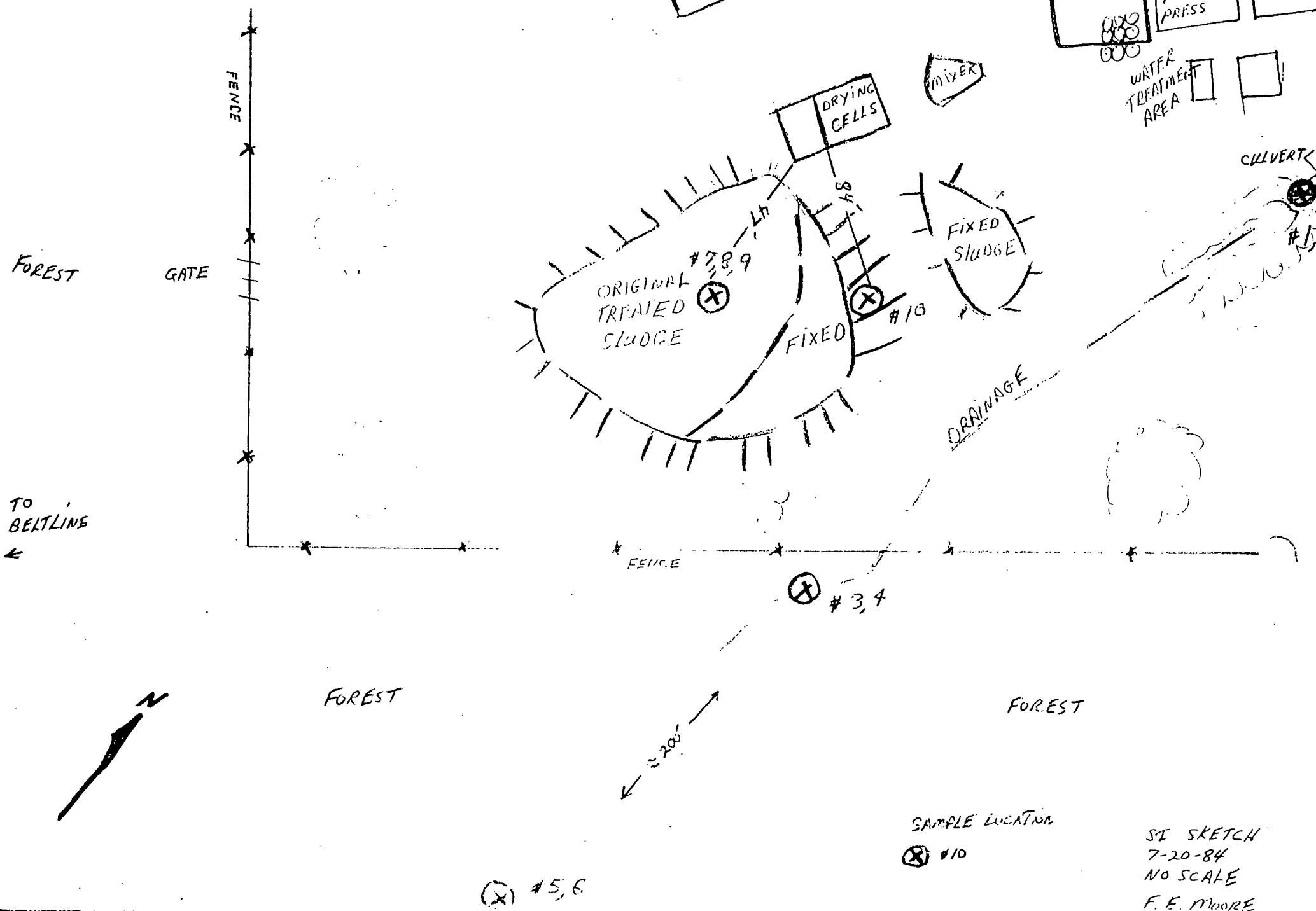
III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Branch Solid Waste Files



Westinghouse - WAKE M-D 003195963
R/eng ERD, N.C USGS 7.5' QUAD
1968 PHOTO Revised 1973

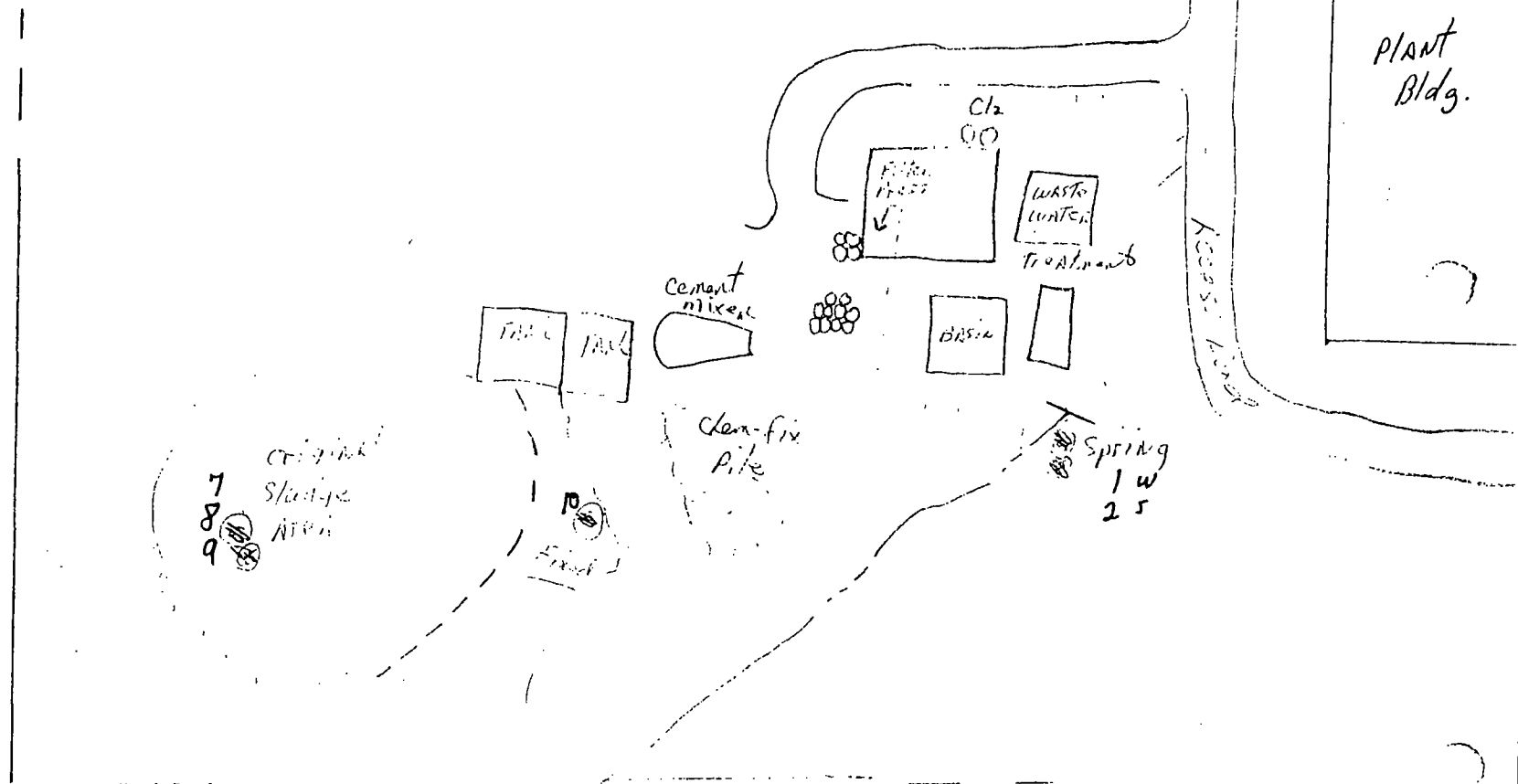
WESTINGHOUSE ELECTRIC CO.
US #1 NORTH
RALEIGH, N.C.
NCD003195963



④ 10

ST SKETCH
7-20-84
NO SCALE
F. E. MOORE

Key to #1
Pre SF Sketch MAP
for Briefing & Planning



Raleigh
Bell/ive

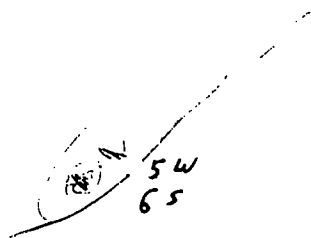
Control Room
Fence
3W
4S
5S

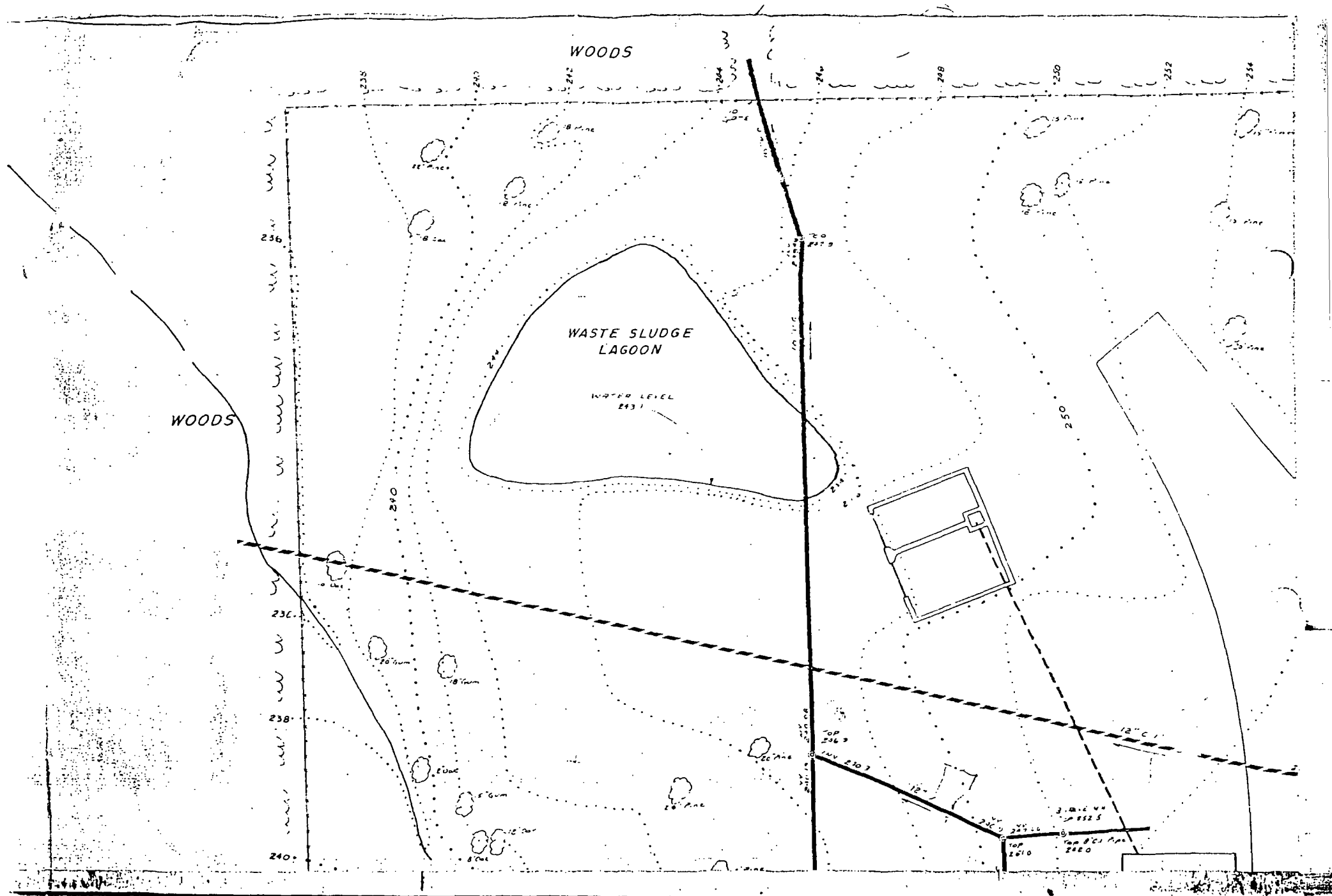
from
C.R.

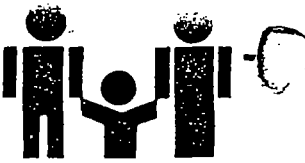
Westinghouse Plant
Metal Picking Sludge Area
Raleigh, N.C.

Sketch Map - no scale
7-19-84 F.E.M.

Proposed Sampling
Locations







DIVISION OF HEALTH SERVICES
P.O. Box 2091
Raleigh, N.C. 27602-2091

Frank
Ronald H. Levine, M.D., M.P.H.
STATE HEALTH DIRECTOR

August 29, 1984

Mr. David Daugherty
Westinghouse Electric Corporation
Box 9533
Raleigh, N. C. 27611

RE: Site Inspection Sample Results

Dear Dave:

Please find attached the lab results from the 3012 Program Site Inspection on July 20, 1984. Sorry for the delay, the lab has been very busy this summer.

If you have any questions concerning these results or the site inspection, please contact me at (919) 733-2178.

Sincerely,

Frank E. Moore

Frank E. Moore, Geologist

Solid & Hazardous Waste Management Branch
Environmental Health Section

FEM:jj
attachments

C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
STATE LABORATORY OF PUBLIC HEALTH
P. O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

Site Number 92-00000/00-X Field Sample Number 001267
Name of Site Westinghouse Site Location As1
Collected By F. Moore ID# 027 Date Collected _____ Time _____
Type of Sample:

Environmental Concentrate
Groundwater Solid
☒ Surface Water Liquid
Soil Sludge
Other Other

Comments
#1 Up-gradient stream sample

INORGANIC CHEMISTRY

Extractables		Total		Parameter	Results mg/l
Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
Arsonic		Arsonic	<u><0.01</u>	Chloride	<u>6</u>
Barium		Barium	<u><0.1</u>	Conductivity	<u>107.4 mhos</u>
Cadmium		Cadmium	<u><2.000</u>	Copper	<u><0.05</u>
Chromium		Chromium	<u><0.01</u>	Fluoride	<u>0.62</u>
Lead		Lead	<u><0.03</u>	Iron	<u>0.30</u>
Mercury		Mercury	<u><0.0002</u>	Manganese	<u>0.07</u>
Selenium		Selenium	<u><0.005</u>	Nitrate	<u><1.0</u>
Silver		Silver	<u><0.05</u>	pH	<u>7.1</u>
		Nickel	<u><0.05</u>	Sulfates	<u>14</u>
				TDS	<u>104</u>
				Zinc	<u>0.22</u>
				TOC	<u>10</u>

ORGANIC CHEMISTRY

Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
Endrin		Toxaphene		PCB's	
Lindane		2,4-D		Petroleum	
Methoxychlor		2,4,5-TP(Silvex)		EDB	
				TOX	

MICROBIOLOGY

RADIOCHEMISTRY

Parameter	Parameter	Results PCi/l
(MF) Coliform Colonies/100mls	Gross Alpha	
(MPN) Coliform Colonies/100mls	Gross Beta	

Date Received _____ Date Reported 8/2/84
Date Extracted _____ Date Analyzed _____
Reported By _____ Lab Number 38994 JUL 23 84

C. DEPARTMENT OF HUMAN RESOURCE
DIVISION OF HEALTH SERVICES
STATE LABORATORY OF PUBLIC HEALTH

P. O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

Site Number 22-00000100-X Field Sample Number 01268
Name of Site Westinghouse Site Location RA US #1 N
Collected By A. H. H. ID# 027 Date Collected 7-20 Time 9:35 A.M.
Type of Sample:

Environmental

☐ Groundwater
☐ Surface Water
☐ Soil
☒ Other, SEDIMENTS

Concentrate
☐ Solid
☐ Liquid
☐ Sludge
☐ Other

Comments

UPPERMENT SEDIMENTS

INORGANIC CHEMISTRY

Extractables		Total		Parameter	Results mg/l
Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
<input checked="" type="checkbox"/> Arsenic	<u><0.01</u>	<input checked="" type="checkbox"/> Arsenic	<u>0.49</u>	<input type="checkbox"/> Chloride	
<input checked="" type="checkbox"/> Barium	<u>0.1</u>	<input checked="" type="checkbox"/> Barium	<u>15</u>	<input type="checkbox"/> Conductivity	
<input checked="" type="checkbox"/> Cadmium	<u><0.05</u>	<input checked="" type="checkbox"/> Cadmium	<u><2.4</u>	<input checked="" type="checkbox"/> Copper	<u><0.05</u>
<input checked="" type="checkbox"/> Chromium	<u><0.05</u>	<input checked="" type="checkbox"/> Chromium	<u>37</u>	<input type="checkbox"/> Fluoride	
<input checked="" type="checkbox"/> Lead	<u><0.1</u>	<input checked="" type="checkbox"/> Lead	<u>54</u>	<input checked="" type="checkbox"/> Iron	<u>0.13</u>
<input checked="" type="checkbox"/> Mercury	<u><0.02</u>	<input checked="" type="checkbox"/> Mercury	<u><0.10</u>	<input checked="" type="checkbox"/> Manganese	<u>0.15</u>
<input checked="" type="checkbox"/> Selenium	<u><0.10</u>	<input checked="" type="checkbox"/> Selenium	<u><4.9</u>	<input type="checkbox"/> Nitrate	
<input checked="" type="checkbox"/> Silver	<u><0.05</u>	<input checked="" type="checkbox"/> Silver	<u><2.4</u>	<input checked="" type="checkbox"/> pH	<u>7.3</u>
<input checked="" type="checkbox"/> Nickel	<u><0.05</u>	<input checked="" type="checkbox"/> Nickel	<u>11</u>	<input type="checkbox"/> Sulfates	
<input type="checkbox"/> Copper	<u><0.05</u>	<input type="checkbox"/> Copper	<u>88</u>	<input type="checkbox"/> TDS	
<input type="checkbox"/> Iron	<u>0.13</u>	<input type="checkbox"/> Iron	<u>12,500</u>	<input checked="" type="checkbox"/> Zinc	<u>0.78</u>
<input type="checkbox"/> Manganese	<u>0.15</u>	<input type="checkbox"/> Manganese	<u>87</u>	<input type="checkbox"/> TOC	
<input type="checkbox"/> Zinc	<u>0.78</u>	<input type="checkbox"/> Zinc	<u>240</u>		

ORGANIC CHEMISTRY

Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
<input type="checkbox"/> Endrin		<input type="checkbox"/> Toxaphene		<input type="checkbox"/> PCB's	
<input type="checkbox"/> Lindane		<input type="checkbox"/> 2,4-D		<input type="checkbox"/> Petroleum	
<input type="checkbox"/> Methoxychlor		<input type="checkbox"/> 2,4,5-TP(Silvex)		<input type="checkbox"/> EDB	
				<input type="checkbox"/> TOX	

MICROBIOLOGY

RADIOCHEMISTRY

Parameter	Parameter	Results PCi/l
<input type="checkbox"/> (MF) Coliform Colonies/100mls	<input type="checkbox"/> Gross Alpha	
<input type="checkbox"/> (MPN) Coliform Colonies/100mls	<input type="checkbox"/> Gross Beta	

Date Received _____ Date Reported 8 Aug 84
Date Extracted _____ Date Analyzed _____
Reported By _____ Lab Number 39006 JUL 23 84

C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
STATE LABORATORY OF PUBLIC HEALTH
P. O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

Site Number 92-00000 100-X Field Sample Number 001269
Name of Site Westinghouse Site Location La1
Collected By F. Moore ID# 027 Date Collected 7-20-84 Time 9:45 AM
Type of Sample:

☐ Environmental
☐ Groundwater
☒ Surface Water
☐ Soil
☐ Other

☐ Concentrate
☐ Solid
☐ Liquid
☐ Sludge
☐ Other

Comments

Stream Sample Adjacent to waste
pile #3

INORGANIC CHEMISTRY

Extractables		Total		Parameter	Results mg/l
Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
Arsenic		Arsenic	<u><0.01</u>	Chloride	<u>8</u>
Barium		Barium	<u><0.1</u>	Conductivity	<u>1104 mhos</u>
Cadmium		Cadmium	<u><0.005</u>	Copper	<u><0.05</u>
Chromium		Chromium	<u><0.01</u>	Fluoride	<u>0.79</u>
Lead		Lead	<u><0.03</u>	Iron	<u>0.12</u>
Mercury		Mercury	<u><0.0002</u>	Manganese	<u>0.04</u>
Selenium		Selenium	<u><0.005</u>	Nitrate	<u><1.0</u>
Silver		Silver	<u><0.05</u>	pH	<u>7.4</u>
		Nickel	<u><0.05</u>	Sulfates	<u>15</u>
				EDS	<u>108</u>
				Zinc	<u>0.18</u>
				TOC	<u>8</u>

ORGANIC CHEMISTRY

Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
Endrin		Toxaphene		PCB's	
Lindane		2,4-D		Petroleum	
Methoxychlor		2,4,5-TP(Silvex)		EDB	
				TOX	

MICROBIOLOGY

RADIOCHEMISTRY

Parameter	Results	Parameter	Results PCi/l
(MF) Coliform Colonies/100mls		Gross Alpha	
(MPN) Coliform Colonies/100mls		Gross Beta	

Date Received _____ Date Reported 8/2/84
Date Extracted _____ Date Analyzed _____
Reported By _____ Lab Number 38995 JUL 23 84

CST

N.C. DEPARTMENT OF HUMAN RESOURCE
DIVISION OF HEALTH SERVICES
STATE LABORATORY OF PUBLIC HEALTH
P. O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

Site Number 92-0000 -X Field Sample Number 001270
Name of Site Westinghouse Site Location Line: US #1 N
Collected By F. Moore ID# 027 Date Collected 7-20-84 Time 7:30 A.M.

Type of Sample:

<input checked="" type="checkbox"/> Environmental	<input type="checkbox"/> Concentrate	Comments <u>Send to Waste File #4</u>
<input type="checkbox"/> Groundwater	<input type="checkbox"/> Solid	
<input type="checkbox"/> Surface Water	<input type="checkbox"/> Liquid	
<input type="checkbox"/> Soil	<input type="checkbox"/> Sludge	
<input checked="" type="checkbox"/> Other <u>Solid</u>	<input type="checkbox"/> Other	

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
<input checked="" type="checkbox"/> Arsenic	<u><0.01</u>	<input checked="" type="checkbox"/> Arsenic	<u><0.5</u>	<input type="checkbox"/> Chloride	
<input checked="" type="checkbox"/> Barium	<u>0.1</u>	<input checked="" type="checkbox"/> Barium	<u>10</u>	<input type="checkbox"/> Conductivity	
<input checked="" type="checkbox"/> Cadmium	<u><0.05</u>	<input checked="" type="checkbox"/> Cadmium	<u><2.5</u>	<input checked="" type="checkbox"/> Copper	
<input checked="" type="checkbox"/> Chromium	<u><0.05</u>	<input checked="" type="checkbox"/> Chromium	<u>19</u>	<input type="checkbox"/> Fluoride	
<input checked="" type="checkbox"/> Lead	<u><0.1</u>	<input checked="" type="checkbox"/> Lead	<u>20</u>	<input checked="" type="checkbox"/> Iron	
<input checked="" type="checkbox"/> Mercury	<u><0.02</u>	<input checked="" type="checkbox"/> Mercury	<u><0.10</u>	<input checked="" type="checkbox"/> Manganese	
<input checked="" type="checkbox"/> Selenium	<u><0.10</u>	<input checked="" type="checkbox"/> Selenium	<u><5.0</u>	<input type="checkbox"/> Nitrate	
<input checked="" type="checkbox"/> Silver	<u><0.05</u>	<input checked="" type="checkbox"/> Silver	<u><2.5</u>	<input checked="" type="checkbox"/> pH	<u>8.3</u>
<input checked="" type="checkbox"/> Nickel	<u><0.05</u>	<input checked="" type="checkbox"/> Nickel	<u>10</u>	<input type="checkbox"/> Sulfates	
<input checked="" type="checkbox"/> Copper	<u>0.11</u>	<input checked="" type="checkbox"/> Copper	<u>69</u>	<input type="checkbox"/> TDS	
<input checked="" type="checkbox"/> Iron	<u>0.07</u>	<input checked="" type="checkbox"/> Iron	<u>7550</u>	<input checked="" type="checkbox"/> Zinc	
<input checked="" type="checkbox"/> Manganese	<u>0.23</u>	<input checked="" type="checkbox"/> Manganese	<u>80</u>	<input type="checkbox"/> TOC	
<input checked="" type="checkbox"/> Zinc	<u>0.22</u>	<input checked="" type="checkbox"/> Zinc	<u>250</u>		

ORGANIC CHEMISTRY

Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
<input type="checkbox"/> Endrin		<input type="checkbox"/> Toxaphene		<input type="checkbox"/> PCB's	
<input type="checkbox"/> Lindane		<input type="checkbox"/> 2,4-D		<input type="checkbox"/> Petroleum	
<input type="checkbox"/> Methoxychlor		<input type="checkbox"/> 2,4,5-TP(Silvex)		<input type="checkbox"/> EDB	
<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/> TOX	
<input type="checkbox"/>		<input type="checkbox"/>			

MICROBIOLOGY

RADIOCHEMISTRY

Parameter	Parameter	Results PCi/l
<input type="checkbox"/> (MF) Coliform Colonies/100mls	<input type="checkbox"/> Gross Alpha	
<input type="checkbox"/> (MPN) Coliform Colonies/100mls	<input type="checkbox"/> Gross Beta	
<input type="checkbox"/>		
<input type="checkbox"/>		

Date Received _____ Date Reported 8 Aug 84
Date Extracted _____ Date Analyzed _____
Reported By _____ Lab Number 39007 JUL 23 84

C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
STATE LABORATORY OF PUBLIC HEALTH
P. O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

Site Number 92-00000100-X Field Sample Number 001475
Name of Site Westinghouse Site Location Rp1
Collected By F. Moore ID# 027 Date Collected 7-20-84 Time 10:15 A.M.
Type of Sample:

<input checked="" type="checkbox"/> Environmental	Concentrate	Comments
<input type="checkbox"/> Groundwater	<input type="checkbox"/> Solid	<u>Downstream water #5</u>
<input checked="" type="checkbox"/> Surface Water	<input type="checkbox"/> Liquid	<u>(skip)</u>
<input type="checkbox"/> Soil	<input type="checkbox"/> Sludge	
<input type="checkbox"/> Other	<input type="checkbox"/> Other	

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
<input checked="" type="checkbox"/> Arsenic		<input checked="" type="checkbox"/> Arsenic	<u><0.01</u>	<input checked="" type="checkbox"/> Chloride	<u>5</u>
<input type="checkbox"/> Barium		<input checked="" type="checkbox"/> Barium	<u><0.1</u>	<input checked="" type="checkbox"/> Conductivity	<u>154 umhos</u>
<input type="checkbox"/> Cadmium		<input checked="" type="checkbox"/> Cadmium	<u><0.005</u>	<input checked="" type="checkbox"/> Copper	<u><0.05</u>
<input type="checkbox"/> Chromium		<input checked="" type="checkbox"/> Chromium	<u><0.01</u>	<input checked="" type="checkbox"/> Fluoride	<u>0.72</u>
<input type="checkbox"/> Lead		<input checked="" type="checkbox"/> Lead	<u><0.03</u>	<input checked="" type="checkbox"/> Iron	<u>0.14</u>
<input type="checkbox"/> Mercury		<input checked="" type="checkbox"/> Mercury	<u><0.0002</u>	<input checked="" type="checkbox"/> Manganese	<u>0.07</u>
<input type="checkbox"/> Selenium		<input checked="" type="checkbox"/> Selenium	<u><0.005</u>	<input checked="" type="checkbox"/> Nitrate	<u><1.0</u>
<input type="checkbox"/> Silver		<input checked="" type="checkbox"/> Silver	<u><0.05</u>	<input checked="" type="checkbox"/> pH	<u>7.2</u>
		<input checked="" type="checkbox"/> Nickel	<u><0.05</u>	<input checked="" type="checkbox"/> Sulfates	<u>17</u>
				<input checked="" type="checkbox"/> TDS	<u>104</u>
				<input checked="" type="checkbox"/> Zinc	<u>0.18</u>
				<input checked="" type="checkbox"/> TOC	<u>9</u>

ORGANIC CHEMISTRY

Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
<input type="checkbox"/> Endrin		<input type="checkbox"/> Toxaphene		<input type="checkbox"/> PCB's	
<input type="checkbox"/> Lindane		<input type="checkbox"/> 2,4-D		<input type="checkbox"/> Petroleum	
<input type="checkbox"/> Methoxychlor		<input type="checkbox"/> 2,4,5-TP(Silvex)		<input type="checkbox"/> EDB	
				<input type="checkbox"/> TOX	

MICROBIOLOGY

Parameter
(MF) Coliform Colonies/100mls
(MPN) Coliform Colonies/100mls

RADIOCHEMISTRY

Parameter	Results PCi/l
Gross Alpha	
Gross Beta	

Date Received 8/2/84 Date Reported 8/2/84
Date Extracted 8/2/84 Date Analyzed 8/2/84
Reported By F. Moore Lab Number 38996 JUL 23 84

CST

U.S. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
STATE LABORATORY OF PUBLIC HEALTH
P. O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

Site Number 92-00010000 Field Sample Number 001476
Name of Site Westinghouse Site Location Railroad 125 + 1 N
Collected By F. J. Jones ID# 027 Date Collected 7-20-84 Time 10:20 A.M.
Type of Sample

Environmental Concentrate Comments
☒ Groundwater ☐ Solid Down stream sediment #5 (6)
☐ Surface Water ☐ Liquid
☐ Soil ☐ Sludge
☒ Other Sediment ☐ Other

INORGANIC CHEMISTRY

Extractables		Total		Parameter	Results mg/l
Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
/// Arsenic	<0.01	/// Arsenic	<0.50	Chloride	
/// Barium	0.1	/// Barium	10	Conductivity	
/// Cadmium	<0.05	/// Cadmium	<2.5	✓ Copper	
/// Chromium	<0.05	/// Chromium	10	Fluoride	
/// Lead	<0.1	/// Lead	5	✓ Iron	
/// Mercury	<0.02	/// Mercury	<0.10	✓ Manganese	
/// Selenium	<0.10	/// Selenium	<5.0	Nitrate	
/// Silver	<0.05	/// Silver	<2.5	- pH	7.2
/// Nickel	<0.05	/// Nickel	4	Sulfates	
/// Copper	<0.05	/// Copper	19	TDS	
/// Iron	0.50	/// Iron	5320	✓ Zinc	
/// Manganese	<0.05	/// Manganese	95	TOC	
/// Zinc	0.25	/// Zinc	50		

ORGANIC CHEMISTRY

Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
Endrin		Toxaphene		PCB's	
Lindane		2,4-D		Petroleum	
Methoxychlor		2,4,5-TP(Silvex)		EDB	
				TOX	

MICROBIOLOGY

RADIOCHEMISTRY

Parameter	Parameter	Results PCi/l
(MF) Coliform Colonies/100mls	Gross Alpha	
(MPN) Coliform Colonies/100mls	Gross Beta	

Date Received _____ Date Reported 8 Aug 84
Date Extracted _____ Date Analyzed _____
Reported By _____ Lab Number 39008 JUL 23 84

U.S. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
STATE LABORATORY OF PUBLIC HEALTH
P. O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

Site Number 92-000100-X Field Sample Number 001477
Name of Site WEST HAVENS Site Location RAL
Collected By F. Moore ID# 1023 Date Collected 8-20-84 Time 10:30

Type of Sample:

Environmental
Groundwater
Surface Water
Soil
Other

Concentrate
X Solid
Liquid
Sludge
Other

Comments

SLUDGE COMPOSITE FROM
ONE TO SIX FEET

#7

INORGANIC CHEMISTRY

Extractables		Total		Parameter	Results mg/l
Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
Arsenic	<0.01	Arsenic	<0.49	Chloride	
Barium	0.7	Barium	212	Conductivity	
Cadmium	0.17	Cadmium	665	Copper	
Chromium	0.97	Chromium	936	Fluoride	
Lead	0.2	Lead	34	Iron	
Mercury	<0.02	Mercury	<0.10	Manganese	
Selenium	<0.10	Selenium	<4.9	Nitrate	
Silver	<0.05	Silver	<2.5	pH	10.0
Nickel	0.19	Nickel	148	Sulfates	
Cu	0.27	Cu	1010	TDS	
Zn	<0.05	CN ⁻	200	Zinc	
Fe	<0.05	Zn	2270	TOC	
MN	0.04	Fe	3720		
		MN	103		

ORGANIC CHEMISTRY

Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
Endrin		Toxaphene		PCB's	
Lindane		2,4-D		Petroleum	
Methoxychlor		2,4,5-TP(Silvex)		EDB	
				TOX	

MICROBIOLOGY

RADIOCHEMISTRY

Parameter	Parameter	Results PCi/l
(MF) Coliform Colonies/100mls	Gross Alpha	
(MPN) Coliform Colonies/100mls	Gross Beta	

Date Received _____ Date Reported 8 Aug 84
Date Extracted _____ Date Analyzed _____
Reported By _____ Lab Number 39011 JUL 23 84

#8

DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES

STATE LABORATORY OF PUBLIC HEALTH

P. O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

Site Number 92-00000100 X Field Sample Number 001334
Name of Site Westinghouse Site Location US #1 N Rd
Collected By F. Moore ID# 827 Date Collected 7-20-84 Time 10:45 A.M.

Type of Sample:

Environmental
Groundwater
Surface Water
Soil
Other

Concentrate
☒ Solid
Liquid
Sludge
Other

Comments

Nugget hole 5'-8' in pit

CK for solvents halogenated / non-halogenated

INORGANIC CHEMISTRY

Extractables		Total		Parameter	Results mg/l
Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
— Arsenic	—	— Arsenic	—	— Chloride	—
— Barium	—	— Barium	—	— Conductivity	—
— Cadmium	—	— Cadmium	—	— Copper	—
— Chromium	—	— Chromium	—	— Fluoride	—
— Lead	—	— Lead	—	— Iron	—
— Mercury	—	— Mercury	—	— Manganese	—
— Selenium	—	— Selenium	—	— Nitrate	—
— Silver	—	— Silver	—	— pH	—
—	—	—	—	— Sulfates	—
—	—	—	—	— TDS	—
—	—	—	—	— Zinc	—
—	—	—	—	— TOC	—

ORGANIC CHEMISTRY

Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
— Endrin	—	— Toxaphene	—	— PCB's	—
— Lindane	—	— 2,4-D	—	— Petroleum	—
— Methoxychlor	—	— 2,4,5-TP(Silvex)	—	— EDB	—
—	—	—	—	— TOX	—
—	—	— <u>VDA</u>	— <u>N.D.*</u>	—	—

MICROBIOLOGY

RADIOCHEMISTRY

Parameter	Parameter	Results PCi/l
— (MF) Coliform Colonies/100mls	— Gross Alpha	—
— (MPN) Coliform Colonies/100mls	— Gross Beta	—
—	—	—
—	—	—

CK for halogenated / non-halogenated solvents

Date Received 7/20/84 Date Reported 8/24/84
Date Extracted 8/22/84 Date Analyzed 8/22/84
Reported By 43367 Lab Number 43367

* N.D. = < 0.01 ppm (µg/g)

3. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES

STATE LABORATORY OF PUBLIC HEALTH

P. O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

Site Number 92-00000100-X

Field Sample Number 001478

Name of Site PLASTIC HOUSE

Site Location RAL

Collected By A. Moore ID# 027

Date Collected 7-20-84 Time 11:00

Type of Sample: F. Moore

<input checked="" type="checkbox"/> Environmental	Concentrate	<u>SOIL</u>	Comments
<input type="checkbox"/> Groundwater	<input type="checkbox"/> Solid	<u>SOIL AT ASSUMED BOTTOM</u>	
<input type="checkbox"/> Surface Water	<input type="checkbox"/> Liquid	<u>OF AT (6.5 TO 8 FEET)</u>	<u>#9</u>
<input checked="" type="checkbox"/> Soil	<input type="checkbox"/> Sludge		
<input type="checkbox"/> Other	<input type="checkbox"/> Other		

INORGANIC CHEMISTRY

Extractables		Total		Parameter	Results mg/l
Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
✓ Arsenic	<0.01	✓ Arsenic	<0.5	— Chloride	
✓ Barium	0.2	✓ Barium	45	— Conductivity	
✓ Cadmium	<0.05	✓ Cadmium	<2.5	✓ Copper	
✓ Chromium	<0.05	✓ Chromium	225	— Fluoride	
✓ Lead	<0.1	✓ Lead	10	✓ Iron	
✓ Mercury	<0.02	✓ Mercury	<0.10	✓ Manganese	
✓ Selenium	<0.10	✓ Selenium	<5.0	— Nitrate	
✓ Silver	<0.05	✓ Silver	<2.5	✓ pH	7.8
✓ Nickel	<0.05	✓ Nickel	245	— Sulfates	
✓ Copper	0.21	✓ Copper	288	— TDS	
✓ Iron	<0.05	✓ Iron	38,100	✓ Zinc	
✓ Manganese	0.08	✓ Manganese	610	— TOC	
✓ Zinc	0.14	✓ Zinc	5.0		

ORGANIC CHEMISTRY

Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
— Endrin		— Toxaphene		— PCB's	
— Lindane		— 2,4-D		— Petroleum	
— Methoxychlor		— 2,4,5-TP(Silvex)		— EDB	
				— TOX	

MICROBIOLOGY

RADIOCHEMISTRY

Parameter	Parameter	Results PCi/l
(MF) Coliform Colonies/100mls	Gross Alpha	
(MPN) Coliform Colonies/100mls	Gross Beta	

Date Received

Date Reported 8 Aug 84

Date Extracted

Date Analyzed

Reported By

Lab Number 39009 JUL 23 84

C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
STATE LABORATORY OF PUBLIC HEALTH
P. O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

Site Number 92-00000100-X Field Sample Number 001479
Name of Site WESTINGHOUSE Site Location RALEIGH
Collected By F. M. M. M. ID# 027 Date Collected 7-2-84 Time 11:10
Type of Sample: Chem-Fixed

Environmental
Groundwater Concentrate
Surface Water X Solid
Soil Liquid
Other Sludge
Other Other

Comments
CHEM-FIXED SAMPLE from Pile

INORGANIC CHEMISTRY

Extractables		Total		Parameter	Results mg/l
Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
✓ Arsenic	<u><0.01</u>	✓ Arsenic	<u>0.49</u>	Chloride	
✓ Barium	<u>interference</u>	✓ Barium	<u>interference</u>	Conductivity	
✓ Cadmium	<u>0.71</u>	✓ Cadmium	<u>243</u>	✓ Copper	
✓ Chromium	<u>1.30</u>	✓ Chromium	<u>767</u>	Fluoride	
✓ Lead	<u>0.3</u>	✓ Lead	<u>54</u>	✓ Iron	
✓ Mercury	<u><0.02</u>	✓ Mercury	<u><0.10</u>	✓ Manganese	
✓ Selenium	<u><0.10</u>	✓ Selenium	<u><5.0</u>	Nitrate	
✓ Silver	<u>0.05</u>	✓ Silver	<u><2.5</u>	✓ pH	<u>12.1</u>
✓ Nickel	<u>0.42</u>	✓ Nickel	<u>495</u>	Sulfates	
✓ Cu	<u>0.73</u>	✓ Cu	<u>260</u>	TDS	
✓ Zn	<u>7.20</u>	✓ Zn	<u>3248</u>	✓ Zinc	
✓ Fe	<u>0.05</u>	✓ Fe	<u>5150</u>	TOC	
✓ Mn	<u>0.42</u>	✓ Mn	<u>7425</u>		
			<u>146</u>		

ORGANIC CHEMISTRY

Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
Endrin		Toxaphene		PCB's	
Lindane		2,4-D		Petroleum	
Methoxychlor		2,4,5-TP(Silvex)		EDB	
				TOX	

MICROBIOLOGY

RADIOCHEMISTRY

Parameter	Parameter	Results PCi/l
(MF) Coliform Colonies/100mls	Gross Alpha	
(MPN) Coliform Colonies/100mls	Gross Beta	

Date Received _____ Date Reported 8 Aug 84
Date Extracted _____ Date Analyzed _____
Reported By _____ Lab Number 39010 JUL 23 84

LATITUDE AND LONGITUDE CALCULATION WORKSHEET #2

LI USING ENGINEER'S SCALE (1/60)

SITE NAME: Westinghouse Elec. Meter & light CERCLIS #: NCD003195963
 AKA: ABB Power T & D Co., Inc. SSID: n.a.
 ADDRESS: 2728 Capital Blvd
 CITY: Raleigh STATE: NC ZIP CODE: 27604
 SITE REFERENCE POINT: southern most corner of building
 USGS QUAD MAP NAME: Raleigh East TOWNSHIP: - N/S RANGE: - E/W
 SCALE: 1 : 24,000 MAP DATE: 1987 SECTION: - 1/4 - 1/4 - 1/4
 MAP DATUM 1927 1983 (CIRCLE ONE) MERIDIAN: -

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 7.5' MAP (attach photocopy)

LONGITUDE: 78 ° 30 ' 0.00 " LATITUDE: 35 ° 45 ' 0.00 "

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 2.5' GRID CELL:

LONGITUDE: 78 ° 35 ' 0.00 " LATITUDE: 38 ° 47 ' 30.00 "

CALCULATIONS: LATITUDE (7.5' QUADRANGLE MAP)

A) NUMBER OF RULER GRADUATIONS FROM LATITUDE GRID LINE TO SITE REF POINT: 193

B) MULTIPLY (A) BY 0.3304 TO CONVERT TO SECONDS:

A X 0.3304 = 63.77 "C) EXPRESS IN MINUTES AND SECONDS (1' = 60") : 1 ' 3.77 "D) ADD TO STARTING LATITUDE: 38 ° 47 ' 30.00 " + 1 ' 3.77 "SITE LATITUDE: 38 ° 48 ' 33.77 "

CALCULATIONS: LONGITUDE (7.5' QUADRANGLE MAP)

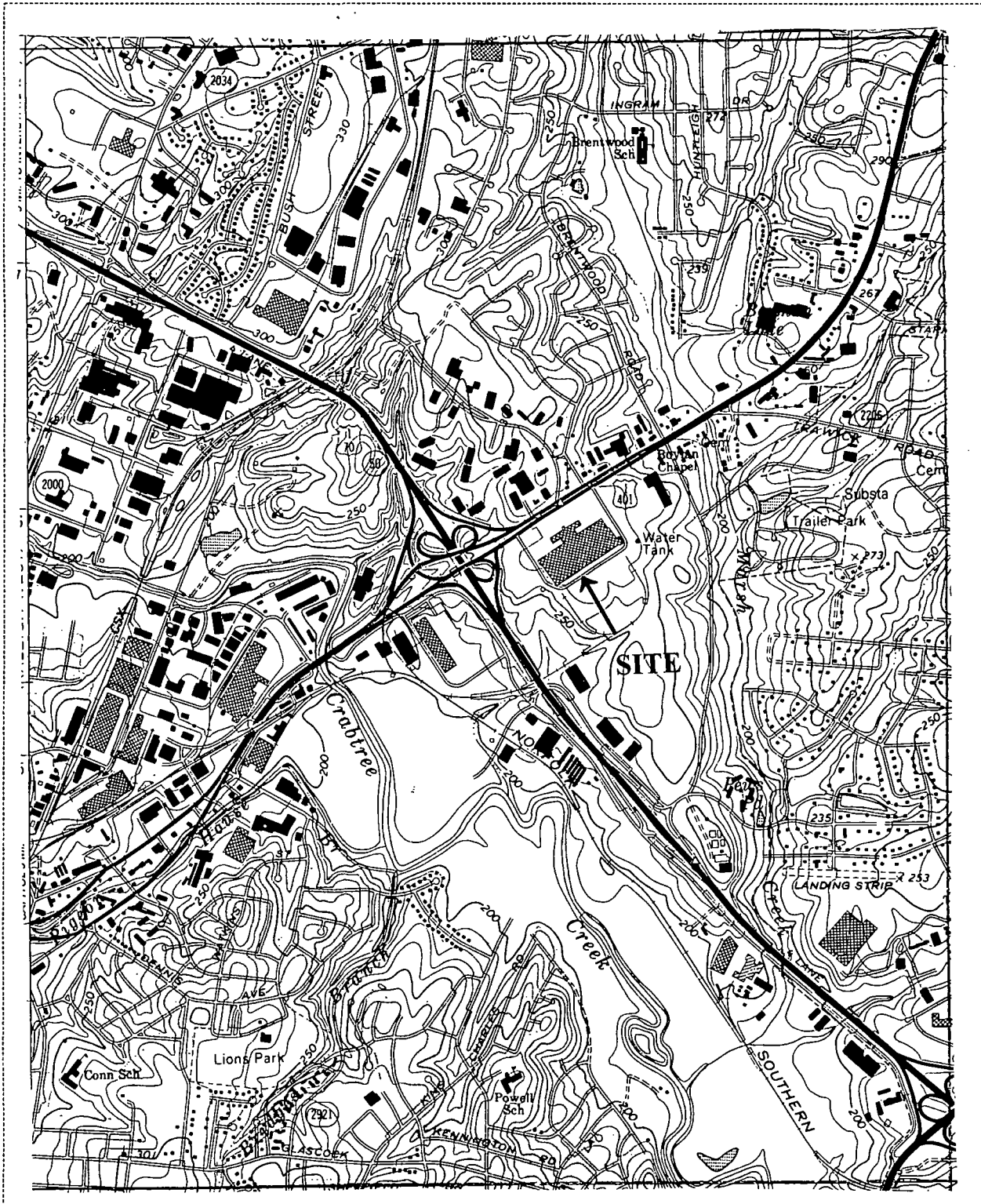
A) NUMBER OF RULER GRADUATIONS FROM RIGHT LONGITUDE LINE TO SITE REF POINT: 239

B) MULTIPLY (A) BY 0.3304 TO CONVERT TO SECONDS:

A X 0.3304 = 78.97 "C) EXPRESS IN MINUTES AND SECONDS (1' = 60") : 1 ' 18.97 "D) ADD TO STARTING LONGITUDE: 78 ° 35 ' 0.00 " + 1 ' 18.97 "SITE LONGITUDE: 78 ° 36 ' 18.97 "INVESTIGATOR: Melanie Bupon DATE: 03/27/2001

SITE NAME: Westinghouse Elec. Meter & Light

NUMBER: NCD003195963



TOPOGRAPHIC MAP QUADRANGLE NAME: Raleigh East SCALE: 1 : 24,000

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 2.5' GRID CELL:

LATITUDE: 38 ° 47 ' 30.00 " LONGITUDE: 78 ° 35 ' 0.00 "

prc

Planning Research Corporation

300 East Wacker Drive
Suite 500
Chicago, IL 60601
312-938-0300



INSPECTION TO ASSESS COMPLIANCE WITH
CLOSURE/POST CLOSURE REQUIREMENTS AT
WESTINGHOUSE CORPORATION
RALEIGH, NORTH CAROLINA
NCD003195963

FINAL REPORT

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Waste Programs Enforcement
Washington, D.C. 20460

Work Assignment No.	:	536
EPA Region	:	4
Site No.	:	None (R)
Date Prepared	:	May 7, 1987
Contract No.	:	68-01-7037
PRC No.	:	15-5360-00
Prepared By	:	Alliance Technologies Corporation
Telephone No.	:	(617) 275-5444
EPA Primary Contact	:	Doyle Brittain
Telephone No.	:	(404) 347-7603

ENFORCEMENT
CONFIDENTIAL

PRIVILEGED WORK PRODUCT PREPARED
IN ANTICIPATION OF LITIGATION

U.S. ENVIRONMENTAL PROTECTION AGENCY
Residuals Management Branch
Waste Compliance Section
Atlanta, Georgia 30365

Contract No. 68-01-7037
Work Assignment No. 536

EPA Project Officer
Doyle Brittain

Inspection to Assess Compliance with
Closure/Post Closure Requirements at
Westinghouse Corporation
Raleigh, North Carolina
NCD003195963

Final Report

Prepared by

William Battye

William Battye, P.E.
(NC Registration No. 11881)

Calvin Overcash

Calvin Overcash

GCA TECHNOLOGY DIVISION, INC.
Chapel Hill, North Carolina 27514

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SECTION 1

INTRODUCTION

Regulations promulgated under the Resource Conservation and Recovery Act (RCRA) require that operators of hazardous waste management facilities have a written closure plan approved by the U.S. Environmental Protection Agency or appropriate State regulatory agency. The regulations also detail specific requirements for the closure and post closure care of such facilities. Under a work assignment for the U. S. Environmental Protection Agency Region IV Waste Compliance Section (EPA Contract No. 68-01-7037 Work Assignment 536), GCA Technology Division, Inc. inspected facilities in EPA Region IV where some or all of the waste management operations have been closed. The purpose of these inspections was to determine whether the facility operators followed their approved closure plans and complied with the requirements of RCRA in closing waste management units.

On May 6, 1986, Messrs. William Battye and Calvin Overcash inspected the Westinghouse Corporation plant, Hwy 1 North, Raleigh, North Carolina (NCD003195963), which had closed a mixer and two tanks used to stabilize electroplating wastes (F006), and a surface impoundment used to dry these wastes. Mr. David Daugherty, Senior Manufacturing Engineer, and Ms. Mary Fox, Environmental Control Officer, provided information on activities carried out to close these units, and on operations at the Westinghouse facility. Mr. Overcash also reviewed RCRA files on the facility at the North Carolina Department of Human Resources (NCDHR) in Raleigh, and spoke to Mr. Jerry Rhodes of NCDHR to clarify the application of RCRA rules in the case of the surface impoundment.

The remainder of this report is divided into five sections: Section 2 - Facility Description; Section 3 - Closure Plans and Chronology; Section 4 - Inspection Findings; Section 5 - Conclusions; and Section 6 - References. Also included are three Appendices: Appendix A - Inspection Notes and Checklist; Appendix B - Documents from File Review; and Appendix C - Other Documents. References listed in Section 6 may also be reproduced in Appendices B and C.

SECTION 2

FACILITY DESCRIPTION

GENERAL

Westinghouse Corporation's Raleigh, North Carolina facility manufactures watt-hour meters and meter components. The facility is vertically integrated, with numerous manufacturing operations carried out on-site, including machining, electroplating, and metal cleaning. Plating wastewaters are treated on-site, and plating wastewater sludges are the largest volume hazardous waste generated at the facility. Other hazardous wastes generated are: degreasing still bottoms, waste solvents, paint and ink sludges and precipitates, and solutions from plating tanks. Sludges from the treatment of plating and other wastewaters formerly were disposed of in an on-site impoundment, but are now shipped off-site for disposal. The treatment and disposition of plating wastewaters and sludges is discussed in more detail below. All other wastes are also shipped off-site for disposal or recycling. Westinghouse applied under RCRA Part A to store wastes on-site prior to their shipment for disposal. In 1984, Westinghouse applied to discontinue the drum storage facility as a RCRA facility. The company will continue to store wastes in the drum storage facility for up to 90 days.

WASTEWATER TREATMENT AND DISPOSAL OF SLUDGES

Process wastewaters at the Westinghouse plant are collected in two sewers: a cyanide sewer, and an acid/alkali sewer. Cyanide wastewaters undergo chlorine oxidation. Acid/alkali wastewaters that contain chromium are treated with sodium bicarbonate to reduce the chromium from Cr^{+6} to Cr^{+3} . After these treatment steps, the process wastewaters are mixed together and the pH of the final solution is adjusted. The combined stream is then fed to a flocculator and a clarifier, after which it is mixed with cleaning water solutions and discharged to the Raleigh POTW. Precipitate from the clarifier is thickened in a filter press, and the final sludge (F006) is shipped to GSX

Corporation in Pinewood, South Carolina for burial. The wastewater treatment operations discussed above are performed in several in-ground rubber-lined concrete tanks.

Prior to 1974, plating wastewater sludges were disposed in an on-site impoundment.¹ After 1974 and before installation of the filter press, plating sludges were fixed with sodium silicate and portland cement in a cement mixer and then stored in two in-ground concrete storage basins prior to shipment to SCA Services (now GSX) for disposal.¹ In 1984, Westinghouse applied to close the mixer and the two basins and withdrew its Part A application to use the two basins for hazardous waste storage. In 1985, Westinghouse applied to close the solid waste impoundment that was formerly used to dispose of plating sludges. After consultation with the State of North Carolina, it was agreed that the closure of the mixer and the two sludge storage basins are covered by the RCRA requirements, while the closure of the solid waste impoundment was not covered.²

SECTION 3

CLOSURE PLANS AND CHRONOLOGY

Three different operations have recently been closed at Westinghouse Corporation's Raleigh, North Carolina plant: the drum storage operation; the plating sludge handling operation, comprising a mixer and two in-ground sludge storage tanks; and the solid waste impoundment that was formerly used to dispose of plating sludge. The drum storage and sludge handling operations were included in the original Part A application. The solid waste impoundment was used to dispose plating wastes before the promulgation of RCRA rules (pre-1974) and was therefore not included in the Part A application. As a condition for final approval of the closure of the RCRA facilities, the State North Carolina Department of Human Resources (NCDHR) required that the solid waste impoundment also be closed.² It was agreed by Westinghouse and the State that the solid waste impoundment closure was not regulated under RCRA, but the State required that the closure be carried out under an approved closure plan, using procedures that would generally conform to RCRA requirements.²

Table 1 gives a chronology for the closure of all three of the above facilities. As the table indicates, two separate closure plans were filed, one for the facilities that were covered under RCRA, and one for the solid waste impoundment. The following sections describe briefly the procedures detailed in the closure plans for the three facilities.

CLOSURE OF THE DRUM STORAGE FACILITY^{3,4}

The closure plan for the drum storage area simply called for the removal of any drums that had been stored on-site for a period of over 90 days. These were to be shipped to SCA Services (now GSX) in Pinewood, South Carolina. The drums were to be inspected for proper packaging and labeling. In the event of damage to a drum, the drum was to be placed in an overpack, or the drum contents transferred to new drums. Any residue in the drum storage area was to be drummed and removed.

CLOSURE OF THE PLATING SLUDGE HANDLING FACILITY^{3,4}

Hazardous Waste Tanks

At the time the RCRA facility closure plan was submitted, the hazardous waste tanks were no longer in use. All liquid in the tanks had been pumped to the new on-site wastewater treatment facility, and the remaining sludge had been shoveled into a 55-gallon drum and solidified with absorbent material.

The closure plan called for the removal of piping associated with the handling operation, and the shipment of the collected sludge to SCA Services. Following these removal operations, the tanks were to be thoroughly rinsed with water, with the contaminated water collected and treated in the Westinghouse wastewater treatment facility. Floor samples were then to be taken from each concrete tank, and soil samples were to be taken from the flat area in front of the Northern tank. These were to be analyzed for E.P. toxicity, with no further clean-up action required if no E.P. toxicity was shown. Additional clean-up of soil and/or removal of the tanks was to be done if the samples were E.P. toxic. State approval of the closure plan was conditional on the removal of all material for which leachable levels of contaminants exceeded 10 times the applicable drinking water standard.⁹

Mixer

The closure plan called for the removal of hardened residue in the mixer and sampling of the material for E.P. toxicity. If sampling indicated the residue to be E.P. toxic, the mixer was to be classified as hazardous and shipped off-site for disposal. Otherwise, the mixer was to be sold for scrap. The removed residue, and any visible spills or leakage around the mixer was to be drummed and sent to SCA Services.

TABLE 1. CHRONOLOGY OF CLOSURES AT THE WESTINGHOUSE PLANT

May 16, 1984	The closure plan for the drum storage area and the sludge storage tanks is formalized. The plan gives the following schedule: ³
May 25, 1984	Notify the North Carolina Department of Human Resources of intent to close.
June 11, 1984	Receive plan approval. The subsequent schedule is contingent on receipt of approval. (Note: Approval was not received until May 8, 1985; see below.)
July 6, 1984	Take samples for E.P. toxicity test.
July 13, 1984	Complete removal of containers from drum storage area.
July 20, 1984	Drum storage area decontamination.
August 10, 1984	Complete decontamination of mixer and tanks.
August 31, 1984	Complete removal of containers from mixer and tank decontamination.
September 7, 1984	Disposal of mixer.
September 14, 1984	Backfill or removal of tanks.
September 21, 1984	Final grading of site.
September 28, 1984	Notification of completion of closure to the North Carolina Department of Human Resources.
May 1984 to October 1985	Westinghouse and the State of North Carolina discuss the closure of the solid waste impoundment. The State makes approval of the drum storage area and the sludge storage tanks contingent on the closure of the solid waste impoundment. ²
February 20, 1985	Westinghouse submits a closure plan for the solid waste impoundment. The plan includes the following schedule: ⁵
March 31, 1985	Final approval of plan by the State.

(continued)

TABLE 1. CHRONOLOGY OF CLOSURES AT THE WESTINGHOUSE PLANT (continued)

	May 31, 1985	Complete bid evaluations and select disposal site and subcontractors.
	June 28, 1985	Complete site preparation.
	July 31, 1985	Begin removal of wastes.
	August 31, 1985	Complete removal of waste.
	September 30, 1985	Complete final grading and seeding.
March 27, 1985		The State of North Carolina approves the closure plan for the solid waste impoundment. ^{6,7}
April 29, 1985		Westinghouse begins removal of material from the solid waste impoundment.
May 8, 1985		With work underway in the closure of the solid waste impoundment, the State approves the May 24, 1984, closure plan with a change in schedule based on the actual date of State approval (May 20, 1985 instead of June 11, 1984), and a change in the action level that would prompt additional cleanup. ^{8,9}
May to July 1985		Westinghouse proceeds with closure activities on both the solid waste impoundment and the drum and sludge storage facilities. ⁸
May 30, 1985		Westinghouse completes removal of material from the solid waste impoundment. ⁸
July 18, 1985		Westinghouse receives Professional Engineer certification for the closure of the drum storage area and the sludge mixer and storage tanks. ¹⁰
July 31, 1985		Westinghouse notifies the State that it has completed closure of the solid waste impoundment. ⁸
August 5, 1985		Westinghouse notifies the State that it has completed closure of the drum storage area and the sludge mixer and storage tanks. ¹¹
October 15, 1985		The State of North Carolina approves the closure of the drum storage area and the sludge mixer and storage tanks. The State also concurs that closure of the solid waste impoundment was performed in accordance with the closure plan. ¹²

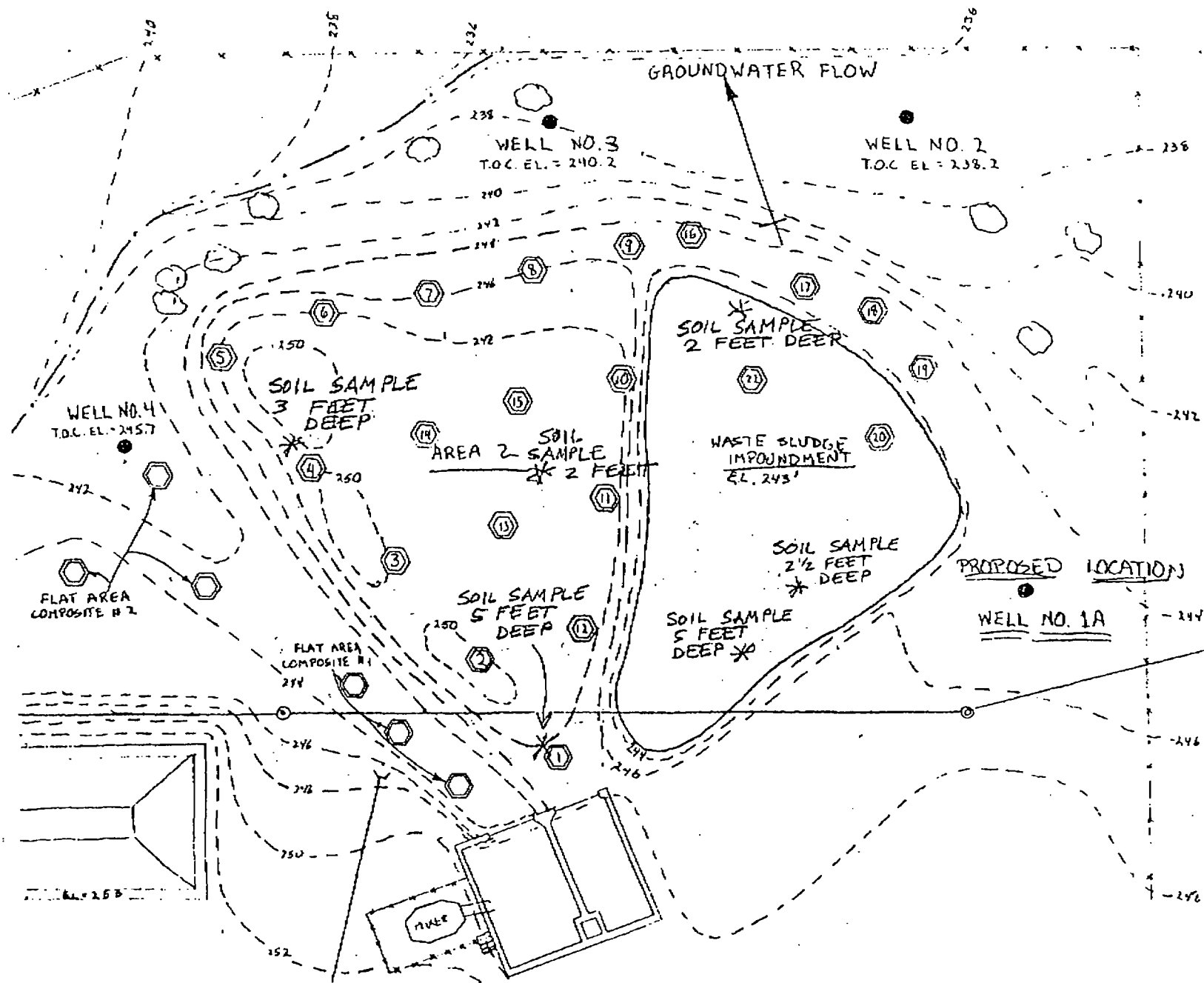
CLOSURE OF THE SOLID WASTE IMPOUNDMENT^{5,6,8}

The solid waste impoundment was used to contain metal plating wastewater treatment sludges treated with lime from the mid-1950's through 1972. There was also an area adjacent to the impoundment which consisted of soil from grading, lime sludge and sludges fixed with sodium silicate and cement. A closure plan was submitted on February 20, 1985 and approved by NCDHR. The plan stated that E.P. toxicity tests had been done on the wastes for copper, nickel, cadmium, chromium, lead, and cyanide. Although the total metal content was high, the leachable levels of the E.P. toxic metals were below the maximum allowed concentration limit and consequently the wastes would not be classified as hazardous based upon E.P. toxicity.

The closure plan called for excavation of all sludge and contaminated soil and disposal at the GSX landfill in Pinewood, South Carolina. The excavation depth was to have been determined visually since the sludge was very different from the soil in appearance. Soil samples taken from under the waste level in the impoundment and from borings made in the surrounding soil dike were subjected to leachate testing prior to submittal of the closure plan. Figure 1 shows the locations where soil samples were taken. Since the leachate levels from these samples were very low,⁵ Westinghouse concluded that removal of all waste and contaminated soil by visual inspection would yield a site with no significant potential for future impact. After waste removal, a field composite of the affected area was taken and subjected to leaching tests. The E.P. toxicity leachate results were below the 10 times drinking water standards as required by NCDHR. Locations and depths from which soil was sampled are shown in Figure 1. The site was then graded to a gently sloping contour and seeded.

Four downgradient groundwater monitoring wells were installed in December 1984, prior to submittal of the closure plan. Monitoring well locations are shown in Figure 1. Samples taken before and during closure met or were close to drinking water standards. (Results are discussed in more detail in the following section.) The closure plan called for monitoring to

Figure 1. Location of soil samples and monitoring wells for the solid waste impoundment.



continue for four consecutive quarters after closure to determine any adverse effect on the groundwater. In the absence of adverse effect, the well casings would be removed and the holes plugged.

SECTION 4
INSPECTION FINDINGS

Checklists used during the inspection are included in Appendix A. Included in Appendix B are telecommunications records of Jerry Rhodes of NCDHR. The following is a compilation of the inspection results.

DRUM STORAGE FACILITY

The drum storage area is a diked, concrete pad surrounded by a chain link fence with a locked gate and covered by a roof. There is a sump at the low point of the pad to allow for collection of blown in rainwater. The drum storage area contained many empty drums to be used for waste, 30 drums of waste oil (non-hazardous), 25 drums of perchloroethylene to be shipped to Safety-Kleen for solvent recovery, and 12 drums of phosphate sludge. All hazardous waste drums were labelled and had been in storage less than 90 days. No contamination or evidence of spillage was observed. Closure of the drum storage area was certified by William L. Klotz, P.E., on July 18, 1985, and John S. Robinson, General Manager of Westinghouse's Raleigh Meter Division on August 5, 1985.^{10,11}

PLATING SLUDGE HANDLING FACILITY

Hazardous Waste Tanks

The hazardous waste tanks were decontaminated by sandblasting. Sample analyses of the tank walls and the surrounding soil indicated a leachable contaminant level less than 10 times drinking water standards.¹³ Associated contaminated piping and the material used to sandblast the tank clean were disposed at GSX, Pinewood.¹⁴ The tank walls were then pushed over and buried in place under approximately five feet of soil according to Westinghouse representatives. This closure information was certified by William L. Klotz, P.E., on July 18, 1985, and John S. Robinson, General Manager of Westinghouse's Raleigh Meter Division on August 5, 1985.^{10,11}

Mixer

The mixer and all associated contaminated piping, pumps, railing, etc., were shipped to GSX, Pinewood for disposal.¹⁴ Manifests for the shipment of the mixer are reproduced in Appendix B.¹¹ Closure was certified complete by William L. Klotz, P.E., on July 18, 1985, and John S. Robinson, General Manager of Westinghouse's Raleigh Meter Division on August 5, 1985.^{10,11}

SOLID WASTE IMPOUNDMENT

The solid waste impoundment was closed as a solid waste unit and not a hazardous waste unit.² Sludge from the bottom of the impoundment was removed to GSX.⁸ A composite of six samples of soil from beneath the impoundment (Figure 1) indicated E.P. toxicity leachate were below drinking water standards.¹⁵ The impoundment was graded in a gentle slope away from the adjacent wastewater treatment plant and was covered with grass. The General Manager of Westinghouse informed NCDHR of completed closure on July 31, 1985. No certifications of closure were submitted since this was a solid waste closure not a RCRA closure, even though the closure was performed in a manner that would generally conform to RCRA requirements.

Groundwater samples have been analyzed for Westinghouse by Industrial and Environmental Analysts, Inc. Monitoring results from December 1984 had shown a cadmium concentration of 0.03 ppm in Well 2, which exceeds the drinking water standard of 0.01 ppm.¹⁶ Monitoring in April 1986 showed levels of all contaminants below detection limits or below the applicable drinking water standard.¹⁷ (The detection limit for lead in the analyses for Westinghouse is twice the drinking water standard; however, sample splits analyzed by NCDHR (April 1985) have shown lead levels less than drinking water standards.)¹⁸ EPA has not delegated authority to NCDHR to require corrective action for releases made prior to the promulgation of RCRA rules.¹² Therefore, NCDHR is keeping EPA Region IV apprised of the monitoring results.

SECTION 5
CONCLUSIONS

On May 6, 1986, Messrs. William Battye and Calvin Overcash inspected Westinghouse Corporation, Raleigh, North Carolina. The following items were noted during the inspection and file review:

- The closure plan for the storage and handling areas was approved by the NCDHR and meets all RCRA requirements. Materials reviewed by GCA at the inspection and in NCDHR files suggest that closures of the storage and handling facilities conformed to the approved closure plan and to RCRA rules. Closure was certified by a P.E. and by the Westinghouse General Manager.
- The drum storage was secured with a fence and locked gate, diked, and no drums of waste stored more than 90 days were observed.
- The area where the hazardous waste tanks and mixer were located was graded to facilitate runoff and vegetation was growing.
- The surface impoundment and adjacent area were closed as a solid waste unit, not a RCRA unit. The area was graded to facilitate runoff and vegetation was growing. No closure certification was required.
- Groundwater monitoring studies are being conducted to determine whether past operation of the impoundment caused any contamination. Samples taken in April 1986 showed contaminant levels below drinking water standards or below detection limits.

Based on discussions with plant personnel, review of available files, and an inspection of the Westinghouse facility, it appeared that the facility closed in accordance with its closure plan. The facility is currently undergoing groundwater assessment. If it is determined that groundwater contamination is present, post closure care should be instituted.

SECTION 6

REFERENCES

1. Letter from David Daugherty, Senior Manufacturing Engineer, Westinghouse Electric Corp., to Frank Moore, North Carolina Department of Human Resources. Documentation on Past Handling of Solid and Hazardous Waste. August 15, 1984. (Reproduced in Appendix B, Item 3.)
2. Telecon. Calvin Overcash, GCA Technology Division with Jerry Rhodes, North Carolina Department of Human Resources. May 15, 1986. (Reproduced in Appendix C, Item 1.)
3. Westinghouse Electric Corp. Storage Areas Closure Plan. May 16, 1984. (Reproduced in Appendix B, Item 1.)
4. Letter from David Daugherty, Senior Manufacturing Engineer, Westinghouse Electric Corp., to Jerry Rhodes, North Carolina Department of Human Resources. Additional Information on Storage Areas Closure Plan. August 13, 1984. (Reproduced in Appendix B, Item 2.)
5. Letter from John Robinson, General Manager, Westinghouse Electric Corp., to William Meyer, North Carolina Department of Human Resources. Solid Waste Impoundment Closure Plan. February 20, 1985. (Reproduced in Appendix B, Item 4.)
6. Letter from David Daugherty, Senior Engineer, Westinghouse Electric Corp., to William Meyer, North Carolina Department of Human Resource. Additional Information on Solid Waste Impoundment Closure Plan. March 22, 1985. (Reproduced in Appendix B, Item 5.)
7. Letter from William Meyer, North Carolina Department of Human Resources, to John Robinson, Westinghouse Electric Corp., Approval of Solid Waste Impoundment Closure. March 27, 1985. (Reproduced in Appendix B, Item 6.)
8. Letter from John Robinson, General Manager, Westinghouse Electric Corp., to William Meyer, North Carolina Department of Human Resource. Additional Information on Closure Activities for Solid Waste Impoundment. July 31, 1985. (Reproduced in Appendix B, Item 9.)
9. Letter from Jerry Rhodes, North Carolina Department of Human Resources, to David Daugherty, Westinghouse Electric Corp. Approval of Storage Areas Closure Plan. May 8, 1985. (Reproduced in Appendix B, Item 7.)
10. Letter from William Klotz, P.E., to Westinghouse Electric Corp. Certification of Closure for Storage Areas. July 18, 1985. (Reproduced in Appendix B, Item 8.)

11. Letter from John Robinson, General Manager, Westinghouse Electric Corp. to William Meyer, North Carolina Department of Human Resources. Owner Certification and Additional Information on Storage Areas Closure. August 5, 1985. (Reproduced in Appendix B, Item 10.)
12. Letter from William Meyer, North Carolina Department of Human Resources, to John Robinson, General Manager, Westinghouse Electric Corp. Approval of Closure. October 15, 1985. (Reproduced in Appendix B, Item 11.)
13. Reference 11, Attachment I -- Analytical Results.
14. Reference 11, Attachment II - Shipping Manifest.
15. Reference 5, Attachment II -- Results of Soil Composite Analysis.
16. Reference 5, Attachment V -- Well Sampling Results.
17. Letter from Joseph Adamovic, Industrial and Environmental Analysts, Inc., to David Daugherty, Westinghouse Electric Corporation. Well Sampling Results. April 23, 1986. (Reproduced in Appendix B, Item 12.)
18. Telecon. William Battye, GCA Technology/Division with David Daugherty, Westinghouse Electric Corp. Well Sampling Results. July 14, 1986. (Reproduced in Appendix C, Item 2.)

U . S . E P A R E G I O N I V

SDMS

Unscannable Material Target Sheet

DocID: 10446421 Site ID: NC D00375963

Site Name: Westinghouse Electric

Nature of Material:

Map:

Computer Disks:

Photos:

CD-ROM:

Blueprints:

Oversized Report:

Slides:

Log Book:

Other (describe): Site Map

Amount of material:

Please contact the appropriate Records Center to view the material.

United States
Environmental Protection
Agency

Office of Emergency and
Remedial Response
Washington, DC 20460

Publication 9345.1-21
EPA/540/R-96/028
PB96-963509
June 1996

Superfund



Superfund Chemical Data Matrix

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SUPERFUND SECTION

Ref 5

HAZARD RANKING SYSTEM
 Hazardous Substance Benchmarks
 376 Substances

SOIL PATHWAY

Substance Name	CAS Number	Reference Dose Screen Conc (mg/kg)	Cancer Risk Screen Conc (mg/kg)
Ammonium picrate	000131-74-8	...	...
Ammonium sulfamate	007773-06-0	1.6E+04*	...
Aniline	000062-53-3	...	1.1E+02*
Anthracene	000120-12-7	2.3E+04*	...
Antimony	007440-36-0	3.1E+01*	...
Arsenic	007440-38-2	2.3E+01*	4.3E-01*
Asbestos	001332-21-4	...	...
Atrazine	001912-24-9	2.7E+03*	2.9E+00*
Azinphos- ethyl	002642-71-9	...	...
Azinphos- methyl	000086-50-0	...	...
Aziridine	000151-56-4	...	...
Barium	007440-39-3	5.5E+03*	...
Barium cyanide	000542-62-1	... *	...
Benz(a)anthracene	000056-55-3	...	8.8E-01*
Benzene	000071-43-2	...	2.2E+01*
Benzene carbonyl chloride	000098-88-4	...	...
Benzidine	000092-87-5	2.3E+02*	2.8E-03*
Benzo(a)pyrene	000050-32-8	...	8.8E-02*

* Indicates difference between previous version of chemical data (JUN94) and current version of chemical data (JUN96).

** Indicates new hazardous substance in current version of chemical data (JUN96).

HAZARD RATING SYSTEM
Hazardous Substance Benchmarks
376 Substances

Substance Name	CAS Number	SOIL PATHWAY	
		Reference Dose Screen Conc (mg/kg)	Cancer Risk Screen Conc (mg/kg)
Chlorine cyanide	000506-77-4	3.9E+03*	...
Chloro-3-methylphenol, 4-	000059-50-7	1.6E+05*	...
Chloroaniline, p-	000106-47-8	3.1E+02*	...
Chlorobenzene	000108-90-7	1.6E+03*	...
Chlorobenzilate**	000510-15-6	1.6E+03	2.4E+00
Chloroform	000067-66-3	7.8E+02*	1.0E+02*
Chloromethane	000074-87-3	...	4.9E+01*
Chloromethyl methyl ether	000107-30-2	...	...
Chloromethyloxirane, 2-	000106-89-8	1.6E+02*	6.5E+01*
Chloronaphthalene, 2-	000091-58-7	6.3E+03*	...
Chlorophenol, 2-	000095-57-8	3.9E+02*	...
Chlorophenyl-phenyl ether, 4-**	007005-72-3	...	...
Chloroprene**	000126-99-8	...	...
Chlorpyrifos	002921-88-2	2.3E+02*	...
Chromium	007440-47-3	3.9E+02*	...
Chromium(III)	016065-83-1	7.8E+04*	...
Chromium(VI)	018540-29-9	3.9E+02*	...
Chrysene	000218-01-9	...	8.8E+01*

* Indicates difference between previous version of chemical data (JUN94) and current version of chemical data (JUN96).
** Indicates new hazardous substance in current version of chemical data (JUN96).

HAZARD RANKING SYSTEM
Hazardous Substance Benchmarks
376 Substances

Substance Name	CAS Number	SOIL PATHWAY	
		Reference Dose Screen Conc (mg/kg)	Cancer Risk Screen Conc (mg/kg)
Cobalt	007440-48-4	...	...
Copper	007440-50-8	...	...
Copper cyanide	000544-92-3	3.9E+02*	...
Coumaphos	000056-72-4	...	...
Creosote	008001-58-9	...	...
Cresol, m-	000108-39-4	3.9E+03*	...
Cresol, o-*	000095-48-7	3.9E+03	...
Cresol, p-	000106-44-5	3.9E+02*	...
Cumene	000098-82-8	3.1E+03*	...
Cyanazine	021725-46-2	1.6E+02*	7.6E-01*
Cyanide	000057-12-5	1.6E+03*	...
Cyanogen	000460-19-5	3.1E+03*	...
Cyanogen bromide	000506-68-3	7.0E+03*	...
Cyclohexane	000110-82-7	...	...
Cyclohexanone	000108-94-1	3.9E+05*	...
Cyclotrimethylenetrinitriamine	000121-82-4	2.3E+02*	5.8E+00*
DDD	000072-54-8	...	2.7E+00*
DDE	000072-55-9	...	1.9E+00*
DDT	000050-29-3	3.9E+01*	1.9E+00*

* Indicates difference between previous version of chemical data (JUN94) and current version of chemical data (JUN96).
** Indicates not hazardous substance in current version of chemical data (JUN96).

HAZARD RANKING SYSTEM
 Hazardous Substance Benchmarks
 376 Substances

Substance Name	CAS Number	SOIL PATHWAY	
		Reference Dose Screen Conc (mg/kg)	Cancer Risk Screen Conc (mg/kg)
Hexachlorinated dibenzofuran, 2,3,4,6,7,	060851-34-5	...	4.0E-05*
Hexachlorobenzene	000118-74-1	6.3E+01*	4.0E-01*
Hexachlorobutadiene	000087-68-3	1.6E+01*	8.2E+00*
Hexachlorocyclohexane, alpha-	000319-84-6	...	1.0E-01*
Hexachlorocyclohexane, beta-	000319-85-7	...	3.6E-01*
Hexachlorocyclohexane, delta-	000319-86-8	...	...
Hexachlorocyclopentadiene	000077-47-4	5.5E+02*	...
Hexachloroethane	000067-72-1	7.8E+01*	4.6E+01*
Hexachlorophene	000070-30-4	2.3E+01*	...
Hexane	000110-54-3	4.7E+03*	...
Hexanone, 2-**	000591-78-6	...	...
Hydrazine	000302-01-2	...	2.1E-01*
Hydrochloric acid	007647-01-0	...	...
Hydrogen cyanide	000074-90-8	1.6E+03*	...
Hydrogen sulfide	007783-06-4	2.3E+02*	...
Indeno(1,2,3-cd)pyrene	000193-39-5	...	8.8E-01*
Ioxynil	001689-83-4
Iron	007439-89-6
Isobutanol	000078-83-1	2.3E+04*	...

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 ** Indicates new hazardous substance in current version of chemical data (JUN96).

HAZARD RANKING SYSTEM
Hazardous Substance Benchmarks
376 Substances

Substance Name	CAS Number	SOIL PATHWAY	
		Reference Dose Screen Conc (mg/kg)	Cancer Risk Screen Conc (mg/kg)
Isophorone	000078-59-1	1.6E+04*	6.7E+02*
KENZENE**	00000000000	...	...
Kepone	000143-50-0	...	...
Lead	007439-92-1	...	...
Lindane	000058-89-9	2.3E+01*	4.9E-01*
Magnesium	007439-95-4	...	...
Malathion	000121-75-5	1.6E+03*	...
Maleic anhydride	000108-31-6	7.8E+03*	...
Maleic hydrazide	000123-33-1	3.9E+04*	...
Manganese	007439-96-5	1.1E+04*	...
Mercury	007439-97-6	2.3E+01*	...
Methacrylonitrile	000126-98-7	7.8E+00*	...
Methanol	000067-56-1	3.9E+04*	...
Methomyl	016752-77-5	2.0E+03*	...
Methoxychlor	000072-43-5	3.9E+02*	...
Methyl chlorocarbonate	000079-22-1	...	...
Methyl ethyl ketone	000078-93-3	4.7E+04*	...
Methyl isobutyl ketone	000108-10-1	6.3E+03*	...
Methyl methacrylate	000080-62-6	6.3E+03*	...

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** Indicates new hazardous substance in current version of chemical data (JUN96).

HAZARD RANKING SYSTEM
 Hazardous Substance Benchmarks
 376 Substances

SOIL PATHWAY

Substance Name	CAS Number	Reference Dose Screen Conc (mg/kg)	Cancer Risk Screen Conc (mg/kg)
Methylcholanthrene, 3-**	000056-49-5	...	...
Methylene bis (2-chloroaniline), 4,4-	000101-14-4	5.5E+01*	4.9E+00*
Methylene bromide**	000074-95-3	...	...
Methylene chloride	000075-09-2	4.7E+03*	8.5E+01*
Methylenediphenyl diisocyanate, 4,4-	000101-68-8	...	...
Methylnaphthalene, 2-	000091-57-6	...	...
Metribuzin	021087-64-9	2.0E+03*	...
Mirex	002385-85-5	1.6E+01*	...
Molybdenum**	007439-98-7	3.9E+02	...
N-nitroso-di-n-propylamine**	000621-64-7	...	9.1E-02
N-nitrosopiperidine**	000100-75-4	...	...
Naphthalene	000091-20-3	3.1E+03*	...
Naphthylamine**	000091-59-8	...	...
Nickel	007440-02-0	1.6E+03*	...
Nitric acid	007697-37-2	...	...
Nitric oxide	010102-43-9
Nitroaniline, 2-**	000088-74-4
Nitroaniline, 3-**	000099-09-2

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HAZARD RANKING SYSTEM
 Hazardous Substance Benchmarks
 376 Substances

Substance Name	CAS Number	SOIL PATHWAY	
		Reference Dose Screen Conc (mg/kg)	Cancer Risk Screen Conc (mg/kg)
Trichlorophenol, 2,4,6-	000088-06-2	...	5.8E+01*
Trichlorophenol, 3,4,5-	000609-19-8	...	...
Trichlorophenoxyacetic acid, 2,4,5-	000093-76-5	7.8E+02*	...
Trichloropropane, 1,2,3-	000096-18-4	4.7E+02*	9.1E-02*
Triethanolamine	000102-71-6	...	...
Trifluralin	001582-09-8	5.9E+02*	8.3E+01*
Trinitrobenzene, 1,3,5-	000099-35-4	3.9E+00*	...
Trinitrotoluene	000118-96-7	3.9E+01*	2.1E+01*
Tris (2,3-dibromopropyl) phosphate	000126-72-7	...	...
Vanadium	007440-62-2	5.5E+02*	...
Vanadium pentoxide	001314-62-1	7.0E+02*	...
Vinyl acetate	000108-05-4	7.8E+04*	...
Vinyl chloride	000075-01-4	...	3.4E-01*
Warfarin	000081-81-2	2.3E+01*	...
Xylene, m-	000108-38-3	1.6E+05*	...
Xylene, o-	000095-47-6	1.6E+05*	...
Xylene, p-	000106-42-3
Zinc	007440-66-6	2.3E+04*	...

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HAZARD RANKING SYSTEM
Hazardous Substance Benchmarks
376 Substances

Substance Name	CAS Number	DRINKING WATER				FOOD CHAIN		ENVIRONMENTAL	
		MCL/MCLG (mg/L)	Reference Dose Screen Conc (mg/L)	Cancer Risk Screen Conc (mg/L)	FDAAL (ppm)	Reference Dose Screen Conc (mg/kg)	Cancer Risk Screen Conc (mg/kg)	AWQC/AALAC Freshwater (ug/L)	Saltwater (ug/L)
Amoxynil	001689-84-5	...	7.3E-01*	...	...	2.7E+01*	...	...	...
adiene, 1,3-	000106-99-0	...	...	...	...	...	...	...	...
anol	000071-36-3	...	3.7E+00*	...	...	1.4E+02*	...	...	...
ylbenzyl phthalate	000085-68-7	...	7.3E+00*	...	...	2.7E+02*	...	...	...
rylic acid, 4-(2,4-dichlorophenoxy)	000094-82-6	...	2.9E-01*	...	...	1.1E+01*	...	...	...
linium	007440-43-9	5.0E-03	1.8E-02*	...	...	6.8E-01*	...	1.1E+00	1.1E+00*
cium**	007440-70-2	...	...	...	...	...	...	...	...
tan	000133-06-2	...	4.7E+00*	2.4E-02*	...	1.8E+02*	9.0E-01*	...	...
baryl	000063-25-2	...	3.7E+00*	...	...	1.4E+02*	...	...	...
azole**	000086-74-8	...	...	4.3E-03	...	...	1.6E-01	...	...
ofuran	001563-66-2	4.0E-02	1.8E-01*	...	...	6.8E+00*	...	...	...
on disulfide	000075-15-0	...	3.7E+00*	...	...	1.4E+02*	...	...	...
on tetrachloride	000056-23-5	5.0E-03	2.6E-02*	6.6E-04*	...	9.5E-01*	2.4E-02*	...	...
ophenothion	000786-19-6	...	...	...	...	...	...	...	...
um	007440-46-2	...	...	...	...	...	...	...	...
oral	000075-87-6	...	7.3E-02*	...	...	2.7E+00*	...	...	...
ordane	000057-74-9	2.0E-03	2.2E-03*	6.6E-05*	3.0E-01	8.1E-02*	2.4E-03*	4.3E-03	4.3E-03*
ordane, alpha-**	005103-71-9
ordane, gamma-**	005566-34-7

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HAZARD RANKING SYSTEM
 Hazardous Substance Benchmarks
 376 Substances

Substance Name	CAS Number	MCL/MCLG (mg/L)	DRINKING WATER			FOOD CHAIN		ENVIRONMENTAL	
			Reference Dose Screen Conc (mg/L)	Cancer Risk Screen Conc (mg/L)	FDAAL (ppm)	Reference Dose Screen Conc (mg/kg)	Cancer Risk Screen Conc (mg/kg)	Freshwater (ug/L)	AWQC/AALAC Saltwater (ug/L)
Chlorine cyanide	000506-77-4	...	1.8E+00*	...	...	6.8E+01*	...	4.0E-03	4.0E-03
Chloro-3-methylphenol, 4-	000059-50-7	...	7.3E+01*	...	...	2.7E+03*	...	...	...
Chloroaniline, p-	000106-47-8	...	1.5E-01*	...	...	5.4E+00*	...	...	...
Chlorobenzene	000108-90-7	1.0E-01*	7.3E-01*	...	...	2.7E+01*	...	...	...
Chlorobenzilate**	000510-15-6	...	7.3E-01	3.2E-04	...	2.7E+01	1.2E-02	...	...
Chloroform	000067-66-3	1.0E-01*	3.7E-01*	1.4E-02*	...	1.4E+01*	5.2E-01*	...	...
Chloromethane	000074-87-3	...	...	6.6E-03*	...	...	2.4E-01*	...	...
Chloromethyl methyl ether	000107-30-2	...	...	...	...	...	...	...	...
Chloromethyloxirane, 2-	000106-89-8	...	7.3E-02*	8.6E-03*	...	2.7E+00*	3.2E-01*	...	...
Chloronaphthalene, 2-	000091-58-7	...	2.9E+00*	...	...	1.1E+02*	...	...	...
Chlorophenol, 2-	000095-57-8	...	1.8E-01*	...	...	6.8E+00*	...	...	...
Chlorophenyl-phenyl ether, 4-*	007005-72-3	...	...	...	...	...	...	...	...
Chloroprene**	000126-99-8	...	...	...	...	...	...	...	...
Chlorpyrifos	002921-88-2	...	1.1E-01*	...	...	4.1E+00*	...	4.1E-02	4.1E-02*
Chromium	007440-47-3	1.0E-01	1.8E-01*	...	...	6.8E+00*	...	1.1E+01*	1.1E+01*
Chromium(III)	016065-83-1	...	3.7E+01*	...	...	1.4E+03*	...	2.1E+02	2.1E+02
Chromium(VI)	018540-29-9	...	1.8E-01*	...	...	6.8E+00*	...	1.1E+01	1.1E+01*
Chrysene	000218-01-9	...	...	1.2E-02*	...	...	4.3E-01*	...	...

* Indicates difference between previous version of chemical data (JUN94) and current version of chemical data (JUN96).
 ** Indicates hazardous substance in current version of chemical data (JUN96).

e B-48
 Data Version: JUN96
 AUG 96

HAZARD RISK SYSTEM
 Hazardous Substance Benchmarks
 376 Substances

Substance Name	CAS Number	DRINKING WATER				FOOD CHAIN		ENVIRONMENTAL	
		MCL/MCLG (mg/L)	Reference Dose Screen Conc (mg/L)	Cancer Risk Screen Conc (mg/L)	FDAAL (ppm)	Reference Dose Screen Conc (mg/kg)	Cancer Risk Screen Conc (mg/kg)	AWQC/AALAC Freshwater (ug/L)	Saltwater (ug/L)
Alt	007440-48-4	...	...	...	...	...	...	...	...
Asper	007440-50-8	1.3E+00	...	...	...	...	...	1.2E+01	1.2E+01*
Asper cyanide	000544-92-3	...	1.8E-01*	...	...	6.8E+00*	...	...	...
Chlaphos	000056-72-4	...	...	...	...	...	...	...	...
Chosote	008001-58-9	...	...	...	...	...	...	...	...
Chsol, m-	000108-39-4	...	1.8E+00*	...	...	6.8E+01*	...	...	...
Chsol, o-**	000095-48-7	...	1.8E+00	...	...	6.8E+01	...	...	...
Chsol, p-	000106-44-5	...	1.8E-01*	...	...	6.8E+00*	...	...	...
Chene	000098-82-8	...	1.5E+00*	...	...	5.4E+01*	...	...	...
Chazine	021725-46-2	...	7.3E-02*	1.0E-04*	...	2.7E+00*	3.8E-03*	...	...
Chide	000057-12-5	2.0E-01	7.3E-01*	...	...	2.7E+01*	...	5.2E+00	5.2E+00*
Chogen	000460-19-5	...	1.5E+00*	...	...	5.4E+01*	...	...	...
Chogen bromide	000506-68-3	...	3.3E+00*	...	...	1.2E+02*	...	...	...
Chohexane	000110-82-7	...	...	...	...	...	...	...	...
Chohexanone	000108-94-1	...	1.8E+02*	...	...	6.8E+03*	...	...	...
Chotrimethylenetrinitriamine	000121-82-4	...	1.1E-01*	7.7E-04*	...	4.1E+00*	2.9E-02*	...	...
	000072-54-8	...	...	3.6E-04*	5.0E+00	...	1.3E-02*	...	...
	000072-55-9	...	...	2.5E-04*	5.0E+00	...	9.3E-03*	...	...
	000050-29-3	...	1.8E-02*	2.5E-04*	5.0E+00	6.8E-01*	9.3E-03*	1.0E-03	1.0E-03

Indicates difference between previous version of chemical data (JUN94) and current version of chemical data (JUN96).
 Indicates new hazardous substance in current version of chemical data (JUN96).

Westinghouse
Electric Corporation

Electronics, Measurement
and Control Divisions

Box 9533
Raleigh North Carolina 27611
(919) 834 5271

16
July 31, 1985

Mr. William Meyer
Head
Solid & Hazardous Waste Management Branch
Environmental Health Section
Division of Health Services
P. O. Box 2091
Raleigh, NC 27602-2091



Dear Mr. Meyer:

We have now removed all wastes from our solid waste impoundment in accordance with the closure plan originally submitted to your office February 20, 1985 and clarified in a March 22, 1985 follow up letter.

We began removal of solid waste April 29, 1985 and completed the removal May 30, 1985. Mr. Jerry Rhodes of your office visited the closure site once during the removal and once after the removal was completed.

We sampled and split groundwater samples with Mr. Bob Glaser of your office on April 23, 1985 before the closure began. Attachment I presents the results from that joint sampling.

All wastes were removed from our site and shipped to the Pinewood, South Carolina landfill of GSX Services of South Carolina, Inc. The total amount of cement-fixed sludge, lime sludge, and contaminated soil shipped to GSX was 121 truckloads (4,772,400 pounds). Attachment II contains a copy of the GSX invoice and a copy of the manifests for the first and last loads.

After waste removal, a field composite was taken which consisted of six soil borings into the area affected by the closure. The composite was subjected to leaching tests in accordance with EPA Procedure SW846, Section 2.1.4, Method 1310 and to total metals analysis in accordance with SW846, Method 3050. In addition, tests for the amount of leachable cyanide were done in accordance with SW846, Section 2.1.4, Method 1310 in which deionized water was substituted for acetic acid.

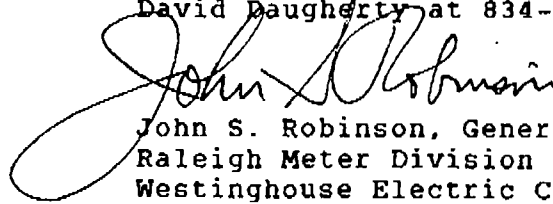
July 31, 1985
Mr. William Meyer
Page 2

The test results are presented in Attachment III. It is seen that all EP-Toxicity leachate results were below the drinking water standards provided by the State.

Attachment IV contains the results from the first round of four quarterly groundwater samples which are to be taken after closure as agreed to in the closure plan. We will take the next round of samples in October 1985 and will report the results to you when they become available.

It is our understanding, through earlier discussions with your office, that: (1) our removal of all wastes from the site has eliminated any requirement that we obtain a permit under 10 NCAC 10G.0200; (2) that the site is no longer considered a solid waste disposal site; and (3) that the site is now in compliance with your order of October 23, 1984.

If you need any additional information, please contact David Daugherty at 834-5271.



John S. Robinson, General Manager
Raleigh Meter Division
Westinghouse Electric Corporation

01270

Attachment I
Results from April 23, 1985
Split-Sampling of Groundwater



Industrial & Environmental Analysts, Inc.

P.O. Box 12542 • Research Triangle Park, NC 27709 • 919-467-9919

May 8, 1985

Mr. David Daugherty
Westinghouse Electric Corporation
P.O. Box 9533
Raleigh, NC 27611

Reference: IEA Report No. 230-4

Dear Mr. Daugherty:

Transmitted herewith are the results of analyses on four samples submitted to our laboratory on April 24, 1985.

		<u>Well</u> <u>No. 1</u>	<u>Well</u> <u>No. 2</u>	<u>Well</u> <u>No. 3</u>	<u>Well</u> <u>No. 4</u>
Copper	mg/l	< 0.02	0.02	< 0.02	< 0.02
Nickel	mg/l	0.05	< 0.03	< 0.03	< 0.03
Chromium	mg/l	< 0.03	< 0.03	< 0.03	< 0.03
Lead	mg/l	< 0.1	< 0.1	< 0.1	< 0.1
Cadmium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01
Cyanide	mg/l	0.02	0.19	0.06	< 0.02

Very truly yours,

INDUSTRIAL & ENVIRONMENTAL ANALYSTS, INC.

Joseph B. Adamovic
Senior Chemist

JBA/kbd

Offices and laboratories located in: Essex Junction, Vermont
Research Triangle Park, North Carolina

Mr. David Daugherty
Reference: IEA Report No. 230-4
May 8, 1985

WESTINGHOUSE GROUNDWATER WELL DATA

Sampling Date: March 23, 1985

	Well I.D.			
	<u>No. 1</u>	<u>No. 2</u>	<u>No. 3</u>	<u>No. 4</u>
Well Depth*	25:00	22:50	23:00	25:00
Water Depth Before Pump	17:13	11:77	15:31	18:78
Water Depth After Pump	21:14	19:75	15:12	18:41
Depth of One Well Volume	7:87	10:73	7:69	6:22
Depth from Pumping	4:01	7:98	0:19	0:37
Time Start Pump	12:10	11:40	10:00	9:40
Time of Sample	13:50	13:10	11:45	10:45
Total Time Pumped	1 hr/40 min	1 hr/30 min	1 hr/45 min	1 hr/5 min
Approximate Pump Rate	.75 gal/min	.75 gal/min	.75 gal/min	.75 gal/min
Conductivity & Temperature	90 mgohms	1230 mgohms	720 mgohms	220 mgohms
pH	5:95	6:10	6:20	6:30

* All depths given in feet and decimal feet



North Carolina Department of Human Resources
Division of Health Services
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor
Phillip J. Kirk, Jr., Secretary

Ronald H. Levine, M.D., M.P.H.
State Health Director
919/733-3446

July 16, 1985

Mr. David Daugherty
Westinghouse Electric Corporation
P.O. Box 9533
Raleigh, NC 27611

Dear Mr. Daugherty:

Please find enclosed a copy of the analytical results from the April 23, 1985 groundwater sampling event. If there are any questions please call me.

Sincerely,

A handwritten signature in cursive script, reading "Robert Glaser", is written below the word "Sincerely,".

Robert Glaser, Geologist
Solid & Hazardous Waste Management Branch
Environmental Health Section

RG/plg

N. C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
STATE LABORATORY OF PUBLIC HEALTH
P. O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

Sample Number 920003195963 Field Sample Number 1733
Name of Site Wheatthorne Site Location Raleigh
Collected By Glaser ID# _____ Date Collected 4/23/85 Time 1110

Type of Sample:

Environmental
Groundwater
Surface Water
Soil
Other

Concentrate
Solid
Liquid
Sludge
Other

Comments

Well #4

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
Arsenic		Arsenic		Chloride	
Barium		Barium		Conductivity	
Cadmium		Cadmium		Copper	
Chromium		Chromium		Fluoride	
Lead		Lead		Iron	
Mercury		Mercury		Manganese	
Selenium		Selenium		Nitrate	
Silver		Silver		pH	
				Sulfates	
				TDS	
				Zinc	
				TOC	

ORGANIC CHEMISTRY

Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
Endrin		Toxaphene		PCB's	
Lindane		2,4-D		Petroleum	
Methoxychlor		2,4,5-TP(Silvex)		EDB	
✓ <u>VCA None detected</u>		✓ <u>acid extract None detected</u>		TOX	<u><5.0 ug/l Cl-</u>
		✓ <u>B/N None detected</u>			

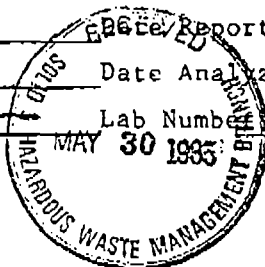
MICROBIOLOGY

Parameter
(MF) Coliform Colonies/100mls
(MPN) Coliform Colonies/100mls

RADIOCHEMISTRY

Parameter	Results PCi/l
Gross Alpha	
Gross Beta	

Date Received 4/24/85 Date Reported 5-30-85
Date Extracted 4-24-85 B/V Date Analyzed 4/25/85
Reported By John R. Neal Lab Number 501529



2

Type of Sample:

Comments

well #3

Liquid

Sludge

Other

Total

ORGANIC CHEMISTRY

RADIOCHEMISTRY

Reported By John F. Neal Lab Number 202373

Lab. Number _____

MAY 30 1985

WASTE MANAGEMENT BRANCH

Number 92.0003195963 Field Sample Number 1731
Name of Site Westinghouse Site Location Raleigh
Collected By Glaser ID# _____ Date Collected 4/23/85 Time 1335
Type of Sample: _____

well #2

N. C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
STATE LABORATORY OF PUBLIC HEALTH
P. O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

File Number 92000-3195963 Field Sample Number 1730
Name of Site Westinghouse Site Location Raleigh
Collected By Glaser ID# _____ Date Collected 4/23/85 Time 1355

Type of Sample:

Environmental
☒ Groundwater
☐ Surface Water
☐ Soil
☐ Other

Concentrate
☐ Solid
☐ Liquid
☐ Sludge
☐ Other

Comments

well #1

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
Arsenic		Arsenic		Chloride	
Barium		Barium		Conductivity	
Cadmium		Cadmium		Copper	
Chromium		Chromium		Fluoride	
Lead		Lead		Iron	
Mercury		Mercury		Manganese	
Selenium		Selenium		Nitrate	
Silver		Silver		pH	
				Sulfates	
				TDS	
				Zinc	
				TOC	

ORGANIC CHEMISTRY

Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
Endrin		Toxaphene		PCB's	
Lindane		2,4-D		Petroleum	
Methoxychlor		2,4,5-TP (Silvex)		EDB	
<input checked="" type="checkbox"/> VOA <u>None detected</u>		<input checked="" type="checkbox"/> 2,4,6-TriT <u>None detected</u>		TOX	<u>43.2 ug/l CO</u>
		<input checked="" type="checkbox"/> B/N <u>None detected</u>			

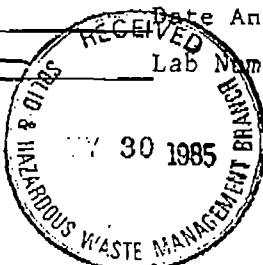
MICROBIOLOGY

Parameter
(MF) Coliform Colonies/100mls
(MPN) Coliform Colonies/100mls

RADIOCHEMISTRY

Parameter	Results PCi/l
Gross Alpha	
Gross Beta	

Date Received 4/24/85 NKB Date Reported 5-30-85
Date Extracted 4-24-85 B10 Date Analyzed 4/25/85 J21
Reported By John L. Neal Lab Number 501526



STATE LABORATORY OF PUBLIC HEALTH
DIVISION OF HEALTH SERVICES
N.C. DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

REPORT: E70RSL30

INORGANIC CHEMICAL ANALYSIS

DATE: 05/24/85

SITE

Site No. *

920007195947

Field Sample Number: 002080

Site NO.:

720003175763

FIELD SAMPLE NUMBER: 002000

Name of Site: Westinghouse Elec Meter & Lvit

Type of Sample: ENVIRONMENTAL GROUND

Collected on: Date: 04/23/85 Time: 1110AM Collected By: GLASER

PARAM			MG/L	PARAM			MG/L
ID	NAME	MEIHOD	RESULIS	ID	NAME	MEIHOD	RESULIS
1005T	ARSENIC	125	< 0.0100	1040	NITRATE	163	< 1.0000
1010T	BARIUM	101	0.3000	1045T	SELENIUM	125	< 0.0050
1015T	CADMIUM	101	< 0.0050	1050T	SILVER	101	< 0.0500
1017	CHLORIDE		9.0000	1052	SODIUM	101	23.0000
1020T	CHROMIUM	101	0.0200	1055	SULFATE	137	6.0000
1022	COPPER	101	< 0.0500	1095	ZINC	101	0.0700
1024	CYANIDE	107	< 0.4000	1925	PH	135	6.3000
1025	FLUORIDE	107	< 0.1000	1926	CONDUCTIVITY	000	210.0000
1028	IRON	101	12.5000	1930	TDS	139	157.0000
1030T	LEAD	101	< 0.0300	1010	TOC	000	10.0000
1032	MANGANESE	101	0.5400				
1035T	MERCURY	103	< 0.0002				
1036	NICKEL	101	< 0.0500				

Date Received: 04/25/85 Date Reported: 05/20/85 Date Analyzed: 04/25/85
Laboratory Number: 508880 Reported By: Comments: WELL 4

Mildred A. Kerbaugh
Director

STATE LABORATORY OF PUBLIC HEALTH
DIVISION OF HEALTH SERVICES
N.C. DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

REPORT: E70RSL30

INORGANIC CHEMICAL ANALYSIS
SITE

DATE: 05/24/85

Site No.:

92D003195963

Field Sample Number: 002079

Name of Site: Westinghouse Elec Meter & Lvit



Type of Sample: ENVIRONMENTAL GROUND

Collected on: Date: 04/23/85 Time: 1140AM Collected By: GLASER

PARAM			MG/L	PARAM			MG/L
ID	NAME	METHOD	RESULTS	ID	NAME	METHOD	RESULTS
1005T	ARSENIC	125 <	0.0100	1040	NITRATE	163	2.5500
1010T	BARIUM	101	0.2000	1045T	SELENIUM	125 <	0.0050
1015T	CADMIUM	101 <	0.0050	1050T	SILVER	101 <	0.0500
1017	CHLORIDE		10.0000	1052	SODIUM	101	49.0000
1020T	CHROMIUM	101 <	0.0100	1055	SULFATE	137	60.0000
1022	COPPER	101 <	0.0500	1095	ZINC	101	0.0800
1024	CYANIDE	107 <	0.4000	1925	PH	135	6.6000
1025	FLUORIDE	107 <	0.1000	1926	CONDUCTIVITY	000	630.0000
1028	IRON	101	3.3400	1930	TDS	139	414.0000
1030T	LEAD	101 <	0.0300	1010	TOC	000	18.0000
1032	MANGANESE	101	0.2000				
1035T	MERCURY	103 <	0.0002				
1036	NICKEL	101 <	0.0500				

Date Received: 04/25/85 Date Reported: 05/20/85 Date Analyzed: 04/25/85
Laboratory Number: 508879 Reported By: Comments: WELL 3

Mildred A. Kerbaugh
Director

STATE LABORATORY OF PUBLIC HEALTH
DIVISION OF HEALTH SERVICES
N.C. DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

REPORT: E70RSL30

INORGANIC CHEMICAL ANALYSIS
SITE

DATE: 05/24/85

Site No.:

92D003195963

Field Sample Number: 002078

Name of Site: Westinghouse Elec Meter & Lvit



Type of Sample: ENVIRONMENTAL GROUND

Collected on: Date: 04/23/85 Time: 0135PM Collected By: GLASER

PARAM				PARAM			
ID	NAME	METHOD	MG/L RESULTS	ID	NAME	METHOD	MG/L RESULTS
1005T	ARSENIC	125 <	0.0100	1040	NITRATE	163	13.5000
1010T	BARIUM	101	0.2000	1045T	SELENIUM	125 <	0.0050
1015T	CADMIUM	101 <	0.0050	1050T	SILVER	101 <	0.0500
1017	CHLORIDE		29.0000	1052	SODIUM	101	84.0000
1020T	CHROMIUM	101	0.0200	1055	SULFATE	137	220.0000
1022	COPPER	101 <	0.0500	1095	ZINC	101	0.0900
1024	CYANIDE	107 <	0.4000	1925	PH	135	6.7000
1025	FLUORIDE	107	0.1300	1926	CONDUCTIVITY	000	1180.0000
1028	IRON	101	6.2000	1930	TDS	139	855.0000
1030T	LEAD	101 <	0.0300	1010	TOC	000	22.0000
1032	MANGANESE	101	3.1300				
1035T	MERCURY	103 <	0.0002				
1036	NICKEL	101	0.0600				

Date Received: 04/25/85 Date Reported: 05/20/85 Date Analyzed: 04/25/85
Laboratory Number: 508878 Reported By: Comments: WELL 2

Mildred A. Kerbaugh
Director

STATE LABORATORY OF PUBLIC HEALTH
DIVISION OF HEALTH SERVICES
N.C. DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

REPORT: E70RSL30

INORGANIC CHEMICAL ANALYSIS
SITE

DATE: 05/24/85

Site No.:

92D003195963

Field Sample Number: 002077

Name of Site: Westinghouse Elec Meter & Lvit

Type of Sample: ENVIRONMENTAL GROUND

Collected on: Date: 04/23/85 Time: 0155PM Collected By: GLASER



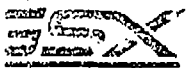
PARAM				PARAM			
ID	NAME	METHOD	MG/L RESULTS	ID	NAME	METHOD	MG/L RESULTS
1005T	ARSENIC	125 <	0.0100	1040	NITRATE	163	1.2000
1010T	BARIUM	101	0.2000	1045T	SELENIUM	125 <	0.0050
1015T	CADMIUM	101 <	0.0050	1050T	SILVER	101 <	0.0500
1017	CHLORIDE		2.0000	1052	SODIUM	101	6.0000
1020T	CHROMIUM	101	0.0100	1055	SULFATE	137 <	1.0000
1022	COPPER	101 <	0.0500	1095	ZINC	101	0.1100
1024	CYANIDE	107 <	0.4000	1925	PH	135	6.2000
1025	FLUORIDE	107 <	0.1000	1926	CONDUCTIVITY	000	82.0000
1028	IRON	101	10.3000	1930	TDS	139	96.0000
1030T	LEAD	101 <	0.0300	1010	TOC	000 <	5.0000
1032	MANGANESE	101	0.2700				
1035T	MERCURY	103	0.0002				
1036	NICKEL	101 <	0.0500				

Date Received: 04/25/85 Date Reported: 05/20/85 Date Analyzed: 04/25/85
Laboratory Number: 508877 Reported By: Comments: WELL 1

Mildred A. Kerbaugh
Director

Attachment II

Invoice and Shipping Records for Waste



GSX Services
of South Carolina, Inc.
Route #1, Box 255
Pinewood, SC 29125
(803) 452-5003

INVOICE

31133

DATE 5-31-85

Westinghouse Electric
PO Box 9533
Raleigh, NC 27603

RECEIVED FROM

Copy Dave Dougherty

MANIFEST NUMBER	CUSTOMERS ORDER NO.	WORK ORDER NO.	SHIPPED VIA
Attached	48-P531015	SEE ATTACHED	
DESCRIPTION			
sposal of _____ Drums of SCA Code _____ @ \$ _____ Per Drum			\$
sposal of _____ Drums of SCA Code _____ @ \$ _____ Per Drum			
sposal of _____ Drums of SCA Code _____ @ \$ _____ Per Drum			
sposal of _____ Drums of SCA Code _____ @ \$ _____ Per Drum			
sposal of _____ Drums of SCA Code _____ @ \$ _____ Per Drum			
sposal of <u>4,772.400</u> Pounds of SCA Code <u>156-1105</u> @ \$ <u>.0325</u> Per Pound			155,103.00
Transportation of <u>798.00</u> Per Load X 121 Loads			96,558.00
Right Detention of _____ Hours @ \$ _____ Per Hour			
ERCLA/Superfund Tax - - - <u>2,386.20</u> Tons @ \$2.13 Per Ton			5,082.60
South Carolina State Hazardous Waste Tax - - - <u>2,386.20</u> Tons @ \$7.50 Per Ton			17,896.50
Other Charges _____			
Invoice Total _____			\$ 274,640.10

Invoice is Equivalent of 2,386.20
Tons of Absorbents

TERMS: Net 10—Service Charge of 1.5% Per Month
(APR of 18% Per Year) On All Accounts Over 30 Days.

*D. K. [Signature]
6-19-85
AP Dougherty
6-19-85*

VENTNOR-HOE ELECTRIC
RALEIGH, N. C.

DATE	WORK ORDER # MANIFEST	WEIGHT	.0525 DISPOSAL	67.00 TON C O TAX	62.15 TON FED TAX	47% LOAD TRANSPORT	EXTENTION
APRIL							
24	43335	2	57200	1209.00	139.50	39.62	798.00
24	43336	3	57700	1225.25	141.38	40.15	798.00
24	43337	4	58320	1147.90	172.45	37.62	798.00
24	43338	5	42180	1383.85	159.68	45.35	798.00
24	43339	6	57360	1214.20	140.10	39.79	798.00
24	43340	7	58380	1247.35	143.93	40.87	798.00
24	43341	8	58360	1148.20	132.60	37.66	798.00
24	43342	9	56640	1190.80	137.40	39.02	798.00
24	43343	10	57580	1221.35	140.93	40.02	798.00
24	43344	11	41560	1353.70	155.05	44.26	798.00
24	43345	13	58820	1261.65	145.53	41.34	798.00
24	43346	14	46640	1300.80	152.40	43.08	798.00
24	43347	15	58220	1242.15	143.35	40.70	798.00
24	43348	16	57520	1219.40	140.70	39.96	798.00
24	43349	17	58240	1275.30	147.15	41.79	798.00
24	43350	18	58760	1259.70	143.35	41.03	798.00
24	43351	19	58100	1270.75	146.83	41.64	798.00
24	43352	20	59220	1277.90	147.45	41.89	798.00
24	43353	21	58100	1220.75	146.83	41.64	798.00
24	43354	22	39000	1267.50	146.25	41.54	798.00
24	43355	23	41880	1360.45	156.98	44.58	798.00
24	43356	24	43180	1402.70	161.35	45.87	798.00
24	43357	25	40960	1351.20	153.60	43.62	798.00
24	43358	26	39180	1272.70	146.85	41.71	798.00
24	43359	27	43020	1398.15	161.53	45.82	798.00
MAY			0.00				
1	43360	28	42100	1368.25	157.88	44.84	798.00
1	43361	29	39740	1291.55	149.03	42.32	798.00
1	43362	30	42540	1382.55	159.53	45.31	798.00
1	43363	31	44120	1433.90	165.45	46.99	798.00
1	43364	32	58060	1256.95	142.70	40.53	798.00
1	43365	33	41560	1350.70	155.85	44.26	798.00
1	43366	34	41640	1353.30	156.15	44.33	798.00
1	43367	35	45720	1420.90	163.95	46.56	798.00
1	43368	36	40540	1317.55	152.05	43.18	798.00
1	43369	37	42380	1377.35	158.95	45.13	798.00
2	43370	38	59840	1294.80	149.40	42.43	798.00
2	43371	39	42840	1392.95	160.75	45.85	798.00
2	43372	40	40200	1306.50	150.75	42.81	798.00
2	43373	41	34980	1249.35	149.40	42.58	798.00
2	43374	42	42140	1369.85	158.05	44.88	798.00
2	43375	43	40120	1367.15	150.87	42.83	798.00
2	43376	44	42160	1370.20	158.10	44.90	798.00
2	43377	45	40940	1387.30	153.15	43.49	798.00
2	43378	46	40520	1316.90	151.95	43.15	798.00
2	43379	47	57320	1216.15	140.53	39.85	798.00
2	43380	48	59100	1270.75	146.83	41.64	798.00
2	43381	49	38460	1268.20	146.10	41.49	798.00

43381	53	1343.00	1343.00	1343.00	1343.00
43382	54	1343.50	1343.50	1343.50	1343.50
43383	55	1344.00	1344.00	1344.00	1344.00
43384	56	1344.50	1344.50	1344.50	1344.50
43385	57	1345.00	1345.00	1345.00	1345.00
43386	58	1345.50	1345.50	1345.50	1345.50
43387	59	1346.00	1346.00	1346.00	1346.00
43388	60	1346.50	1346.50	1346.50	1346.50
43389	61	1347.00	1347.00	1347.00	1347.00
43390	62	1347.50	1347.50	1347.50	1347.50
43391	63	1348.00	1348.00	1348.00	1348.00
43392	64	1348.50	1348.50	1348.50	1348.50
43393	65	1349.00	1349.00	1349.00	1349.00
43394	66	1349.50	1349.50	1349.50	1349.50
43395	67	1350.00	1350.00	1350.00	1350.00
43396	68	1350.50	1350.50	1350.50	1350.50
43397	69	1351.00	1351.00	1351.00	1351.00
43398	70	1351.50	1351.50	1351.50	1351.50
43399	71	1352.00	1352.00	1352.00	1352.00
43400	72	1352.50	1352.50	1352.50	1352.50
43401	73	1353.00	1353.00	1353.00	1353.00
43402	74	1353.50	1353.50	1353.50	1353.50
43403	75	1354.00	1354.00	1354.00	1354.00
43404	76	1354.50	1354.50	1354.50	1354.50
43405	77	1355.00	1355.00	1355.00	1355.00
43406	78	1355.50	1355.50	1355.50	1355.50
43407	79	1356.00	1356.00	1356.00	1356.00
43408	80	1356.50	1356.50	1356.50	1356.50
43409	81	1357.00	1357.00	1357.00	1357.00
43410	82	1357.50	1357.50	1357.50	1357.50
43411	83	1358.00	1358.00	1358.00	1358.00
43412	84	1358.50	1358.50	1358.50	1358.50
43413	85	1359.00	1359.00	1359.00	1359.00
43414	86	1359.50	1359.50	1359.50	1359.50
43415	87	1360.00	1360.00	1360.00	1360.00
43416	88	1360.50	1360.50	1360.50	1360.50
43417	89	1361.00	1361.00	1361.00	1361.00
43418	90	1361.50	1361.50	1361.50	1361.50
43419	91	1362.00	1362.00	1362.00	1362.00
43420	92	1362.50	1362.50	1362.50	1362.50
43421	93	1363.00	1363.00	1363.00	1363.00
43422	94	1363.50	1363.50	1363.50	1363.50
43423	95	1364.00	1364.00	1364.00	1364.00
43424	96	1364.50	1364.50	1364.50	1364.50
43425	97	1365.00	1365.00	1365.00	1365.00
43426	98	1365.50	1365.50	1365.50	1365.50
43427	99	1366.00	1366.00	1366.00	1366.00
43428	100	1366.50	1366.50	1366.50	1366.50
43429	101	1367.00	1367.00	1367.00	1367.00
43430	102	1367.50	1367.50	1367.50	1367.50
43431	103	1368.00	1368.00	1368.00	1368.00
43432	104	1368.50	1368.50	1368.50	1368.50
43433	105	1369.00	1369.00	1369.00	1369.00
43434	106	1369.50	1369.50	1369.50	1369.50
43435	107	1370.00	1370.00	1370.00	1370.00
43436	108	1370.50	1370.50	1370.50	1370.50
43437	109	1371.00	1371.00	1371.00	1371.00
43438	110	1371.50	1371.50	1371.50	1371.50
43439	111	1372.00	1372.00	1372.00	1372.00
43440	112	1372.50	1372.50	1372.50	1372.50
43441	113	1373.00	1373.00	1373.00	1373.00
43442	114	1373.50	1373.50	1373.50	1373.50
43443	115	1374.00	1374.00	1374.00	1374.00
43444	116	1374.50	1374.50	1374.50	1374.50
43445	117	1375.00	1375.00	1375.00	1375.00
43446	118	1375.50	1375.50	1375.50	1375.50
43447	119	1376.00	1376.00	1376.00	1376.00
43448	120	1376.50	1376.50	1376.50	1376.50
43449	121	1377.00	1377.00	1377.00	1377.00
43450	122	1377.50	1377.50	1377.50	1377.50
43451	123	1378.00	1378.00	1378.00	1378.00
43452	124	1378.50	1378.50	1378.50	1378.50
43453	125	1379.00	1379.00	1379.00	1379.00
43454	126	1379.50	1379.50	1379.50	1379.50
43455	127	1380.00	1380.00	1380.00	1380.00
43456	128	1380.50	1380.50	1380.50	1380.50
43457	129	1381.00	1381.00	1381.00	1381.00
43458	130	1381.50	1381.50	1381.50	1381.50
43459	131	1382.00	1382.00	1382.00	1382.00
43460	132	1382.50	1382.50	1382.50	1382.50
43461	133	1383.00	1383.00	1383.00	1383.00
43462	134	1383.50	1383.50	1383.50	1383.50
43463	135	1384.00	1384.00	1384.00	1384.00
43464	136	1384.50	1384.50	1384.50	1384.50
43465	137	1385.00	1385.00	1385.00	1385.00
43466	138	1385.50	1385.50	1385.50	1385.50
43467	139	1386.00	1386.00	1386.00	1386.00
43468	140	1386.50	1386.50	1386.50	1386.50
43469	141	1387.00	1387.00	1387.00	1387.00
43470	142	1387.50	1387.50	1387.50	1387.50
43471	143	1388.00	1388.00	1388.00	1388.00
43472	144	1388.50	1388.50	1388.50	1388.50
43473	145	1389.00	1389.00	1389.00	1389.00
43474	146	1389.50	1389.50	1389.50	1389.50
43475	147	1390.00	1390.00	1390.00	1390.00
43476	148	1390.50	1390.50	1390.50	1390.50
43477	149	1391.00	1391.00	1391.00	1391.00
43478	150	1391.50	1391.50	1391.50	1391.50
43479	151	1392.00	1392.00	1392.00	1392.00
43480	152	1392.50	1392.50	1392.50	1392.50
43481	153	1393.00	1393.00	1393.00	1393.00
43482	154	1393.50	1393.50	1393.50	1393.50
43483	155	1394.00	1394.00	1394.00	1394.00
43484	156	1394.50	1394.50	1394.50	1394.50
43485	157	1395.00	1395.00	1395.00	1395.00
43486	158	1395.50	1395.50	1395.50	1395.50
43487	159	1396.00	1396.00	1396.00	1396.00
43488	160	1396.50	1396.50	1396.50	1396.50
43489	161	1397.00	1397.00	1397.00	1397.00
43490	162	1397.50	1397.50	1397.50	1397.50
43491	163	1398.00	1398.00	1398.00	1398.00
43492	164	1398.50	1398.50	1398.50	1398.50
43493	165	1399.00	1399.00	1399.00	1399.00
43494	166	1399.50	1399.50	1399.50	1399.50
43495	167	1400.00	1400.00	1400.00	1400.00
43496	168	1400.50	1400.50	1400.50	1400.50
43497	169	1401.00	1401.00	1401.00	1401.00
43498	170	1401.50	1401.50	1401.50	1401.50
43499	171	1402.00	1402.00	1402.00	1402.00
43500	172	1402.50	1402.50	1402.50	1402.50

101	44450	107	36700	1291.55	149.05	40.02	798.00	2220.90
102	44451	108	36700	1291.20	138.60	39.56	798.00	2177.16
103	44452	109	36980	1286.55	148.45	42.15	798.00	2278.95
104	44453	110	41040	1353.90	153.40	43.71	798.00	2329.41
105	44454	111	40180	1368.10	151.05	42.90	798.00	2301.05
106	44455	112	36240	1243.80	143.40	40.75	798.00	2224.93
107	44456	113	36480	1185.60	136.80	38.85	798.00	2159.25
108	44457	114	41480	1368.10	155.55	44.18	798.00	2345.83
109	44458	115	38180	1240.85	145.18	40.66	798.00	2222.69
110	44459	116	36740	1194.05	137.78	39.15	798.00	2169.95
111	44460	117	43190	1401.40	161.70	45.42	798.00	2407.02
112	44461	118	43600	1417.00	163.50	46.43	798.00	2424.93
113	44462	119	43440	1411.80	162.90	46.26	798.00	2418.96
114	44463	120	35300	1147.25	132.38	37.58	798.00	2115.22
115	44464	121	35020	1138.15	131.53	37.50	798.00	2104.77
116	44465	122	36940	1298.55	138.53	39.54	798.00	2176.42
117	44466	123	41960	1363.70	157.35	44.69	798.00	2363.74
118	44467	124	42800	1391.00	160.50	45.58	798.00	2395.08
TOTAL			4771400	158105.00	17898.50	5082.51	86533.00	274640.11



South Carolina Department of Health and Environmental Control

Bureau of Solid & Hazardous Waste
100 Bull Street, Col. SC
Columbia, SC 29201
Emergency & Holidays: (803) 735-1333

ON-SITE INSPECTOR
S.C. DEPT. OF HEALTH
& ENVIRONMENTAL CONTROL

Use print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's USEPA ID No. N1C1D1010311915191613100101012		Manifest Document No. 00101012		2. Page 1 of 1		Information in the shaded areas is not required by Federal law, but is by State law.	
3. Generator's Name and Mailing Address Westinghouse Electric Corporation 2728 North Blvd Raleigh NC 27604 4. Generator's Phone (919) 834-5271						A. State Manifest Document Number			
5. Transporter 1 Company Name Willms Trucking						6. US EPA ID Number 5C1D01713171019121917		B. State Generator's ID	
7. Transporter 2 Company Name						8. US EPA ID Number		C. State Transporter's ID (803) 767-3333	
9. Designated Facility Name and Site Address GSX Services Inc. Route 1 Box 255 Pinewood SC 29125						10. US EPA ID Number 5C1D017131715191815		D. Transporter's Phone	
								E. State Transporter's ID	
								F. Transporter's Phone	
								G. State Facility's ID	
								H. Facility's Phone	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers No. Type		13. Total Quantity	
a. Hazard Waste, Solid, N.O.S., ORME NA9189						1 1 D H		38 0 0 0	
b.								14. Unit M/Vol APX 23 Y	
c.								1. Waste No. F 10106	
d.									
J. Additional Descriptions for Materials Listed Above						K. Handling Codes for Wastes Listed Above			
a. P W - 1 5 6 - 1 1 0 5						c. - - - - -			
b. - - - - -						d. - - - - -			
15. Special Handling Instructions and Additional Information Work Order Number : GSX 43335									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and State laws.									
Printed/Typed Name Henry V. Skinner, Jr.				Signature <i>Henry V. Skinner, Jr.</i>				Date Month Day Year 0 4 2 9 8 5	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature <i>Tex Ammons</i> # 45				Date Month Day Year 0 4 2 9 8 5	
Printed/Typed Name 174 Ammons (Ammons)									
18. Transporter 2 Acknowledgement or Receipt of Materials				Signature				Date Month Day Year	
Printed/Typed Name									
19. Discrepancy Indication Space Facility Phone # 803-452-5003 GENERATOR NOTIFIED									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.									
Printed/Typed Name Ollie P. P. P.				Signature <i>Ollie P. P. P.</i>				Date Month Day Year 0 4 2 9 8 5	



South Carolina Department of Health and Environmental Control

Division of Solid & Hazardous Waste
1400 Bull Street, Columbia, SC 29204
Phone: (803) 735-3601
Emergency & Mailboxes: (803) 734-3331

ON-SITE INSPECTOR
S.C. DEPT. OF HEALTH
& ENVIRONMENTAL CONTROL

Please print or type (Form designed for use on 4114 (12-pitch) typewriter)

Approved OMB No. 2000-04 (Replaces 7-31-80)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. N C D 0 0 3 1 9 5 9 6 3		Manifest Document No. 0 0 1 1 2 1 4	2. Page 1 of 1	Information in the shaded areas is not required by Federal law, but is by State law.		
3. Generator's Name and Mailing Address WESTINGHOUSE ELECTRIC CORPORATION 2728 NORTH BLVD. RALEIGH, NORTH CAROLINA 27604					A. State Manifest Document Number			
4. Generator's Phone (919) 834-5271					B. State Generator's ID			
5. Transporter 1 Company Name WILLMS TRUCKING					C. State Transporter's ID			
6. US EPA ID Number SC D 0 7 3 7 0 9 2 9 7					D. Transporter's Phone (803) 767-3333			
7. Transporter 2 Company Name					E. State Transporter's ID			
8. US EPA ID Number					F. Transporter's Phone			
9. Designated Facility Name and Site Address GSX SERVICES INC. ROUTE 1 BOX 255 PINWOOD, SC 29125					G. State Facility's ID			
10. US EPA ID Number S C D 0 7 0 3 7 5 9 8 5					H. Facility's Phone (803) 452-5003			
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)					12. Containers	13. Total Quantity	14. Unit	1. Waste No.
a. Hazard Waste, Solid, N.O.S., ORM-E, NA9189					No. Type			
					1 D H	3,800.0	23Yd	F 0 0 6
b.								
c.								
d.								
J. Additional Descriptions for Materials Listed Above					K. Handling Codes for Wastes Listed Above			
a. P W - 1 5 6 - 1 1 0 5					c. - - - - -			
b. - - - - -					d. - - - - -			
15. Special Handling Instructions and Additional Information WORK ORDER NUMBER GSX 44 467								
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and State law.								
Printed/Typed Name HENRY V. SKINNER JR.					Signature <i>Henry V. Skinner Jr.</i>		Date 0 5 13 0 8 5	
17. Transporter 1 Acknowledgment of Receipt of Materials					Signature <i>Bill Sinclair</i>		Date 0 5 13 0 8 5	
Printed/Typed Name Bill Sinclair					Signature <i>Bill Sinclair</i>		Date 0 5 13 0 8 5	
18. Transporter 2 Acknowledgment of Receipt of Materials					Signature		Date	
Printed/Typed Name					Signature		Date	
19. Discrepancy Indication Space					a. 4280.0 lbs. c. - - - - - b. - - - - - lbs. d. - - - - -			
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.								
Printed/Typed Name G. L. L. H. S. J. S. J.					Signature <i>G. L. L. H. S. J. S. J.</i>		Date 0 5 13 0 8 5	

Attachment III
Post-Closure Solid Composite Results



Industrial & Environmental Analysts, Inc.

P.O. Box 12542 • Research Triangle Park, NC 27709 • 919-467-9919

July 15, 1985

David Daugherty
Westinghouse Corporation
P.O. Box 9533
Raleigh, N.C. 27611

Reference: IEA Report No. 230-5

Dear Mr. Daugherty:

Transmitted herewith are the results of analyses on a single sample submitted to our laboratory on June 28, 1985.

Solid Waste Closure Field Composite

EP-TOX Nickel	mg/l	< 0.03
EP-TOX Chromium	mg/l	< 0.03
EP-TOX Cadmium	mg/l	< 0.01
EP-TOX Lead	mg/l	< 0.005
EP-TOX Copper	mg/l	< 0.02
EP-TOX Cyanide	mg/l	0.15
Total Nickel	mg/kg	42
Total Chromium	mg/kg	210
Total Cadmium	mg/kg	62
Total Lead	mg/kg	60
Total Copper	mg/kg	320

Very truly yours,

INDUSTRIAL & ENVIRONMENTAL ANALYSTS, INC.

Joseph B. Adamovic
Senior Chemist

JBA/sbm

Offices and laboratories located in: Essex Junction, Vermont
Research Triangle Park, North Carolina

Attachment IV
Results of First Quarterly Post-Closure
Groundwater Sampling



Industrial & Environmental Analysts, Inc.
P.O. Box 12542 • Research Triangle Park, NC 27709 • 919-467-9919

July 9, 1985

Mr. David Daugherty
Westinghouse Electric Corporation
P.O. Box 9533
Raleigh, NC 27611

Reference: IEA Report No. 230-6

Dear Mr. Daugherty:

Transmitted herewith are the results of analyses on four samples submitted to our laboratory on July 1, 1985.

		Well #1	Well #2	Well #3	Well #4
Copper	mg/l	0.06	0.14	0.12	0.09
Nickel	mg/l	< 0.03	0.06	< 0.03	< 0.03
Chromium	mg/l	< 0.03	< 0.03	< 0.03	< 0.03
Lead	mg/l	< 0.1	< 0.1	< 0.1	< 0.01
Cadmium	mg/l	< 0.01	0.03	0.02	< 0.01
Cyanide	mg/l	< 0.02	0.19	< 0.02	< 0.02

Very truly yours,

INDUSTRIAL & ENVIRONMENTAL ANALYSTS, INC.

Joseph B. Adamovic
Senior Chemist

JBA/sbm

Offices and laboratories located in: Essex Junction, Vermont
Research Triangle Park, North Carolina

Mr. David Daugherty
Reference: IEA Report # 230-6
July 16, 1985

WESTINGHOUSE GROUNDWATER WELL DATA

Sampling Date: July 1, 1985

Well I.D.

	<u>No. 1</u>	<u>No. 2</u>	<u>No. 3</u>	<u>No. 4</u>
Well Depth	25.00	22.50	23.00	25.00
Water Depth Before Pump	*	13.22	16.10	20.00
Water Depth After Pump	-----	22.00	22.70	25.00
Depth of One Well Volume	-----	9.28	6.90	5.00
Decrease from Pumping	-----	8.78	6.60	5.00
Time Start Pump	-----	11:05	12:45	11:30
Time of Sample	-----	12:15	13:50	13:00
Total Time Pumped	-----	1.7hrs.	1.7hrs.	1.5hrs.
Approximate Pump Rate, gal/min	.75	.75	.75	.75
Conductivity, μ mhos/cm	110	1180	500	200
pH	6.5	6.6	6.6	6.5

All depths given in feet

All samples taken with bailer

*INSUFFICIENT WATER TO PUMP, WELL EVACUATED WITH BAILER.

15

AFFIDAVIT OF PUBLICATION

NORTH CAROLINA }
Wake County. }Notice of
Closure of Hazardous
Waste Storage Tanks

Westinghouse Electric Corporation, Raleigh Meter Division proposes to close two tanks and a mixer used to treat or store hazardous wastes. The closure will proceed in accordance with a plan which has been approved by the North Carolina Department of Human Resources. Within 30 days of the date of publication of this notice, any person may submit written comments and request modification of the plan or request a hearing. Any person with questions regarding this closure should contact Mr. Jerry Rhodes in Raleigh at (919) 733-2178.

N&O: May 15, 1985.

Before the undersigned, a Notary Public of said County and State, duly commissioned and authorized to administer oaths, affirmations, etc.,

personally appeared M. L. Finch, Jr.

who, being duly sworn or affirmed, according to law, doth depose and say

that he is Secretary & Treasurer

of THE NEWS AND OBSERVER PUBLISHING COMPANY, a corporation organized and doing business under the Laws of the State of North Carolina, and publishing a newspaper known as THE NEWS AND OBSERVER, in the City of Raleigh, County and State aforesaid, the said newspaper in which such notice, paper, document, or legal advertisement was published was, at the time of each and every such publication, a newspaper meeting all of the requirements and qualifications of Section 1-597 of the General Statutes of North Carolina and was a qualified newspaper within the meaning of Section 1-597 of the General Statutes of North Carolina, and that as such he makes this affidavit; that he is familiar with the books, files and business of said corporation and by reference to the files of said publication

the attached advertisement of Closure

Storage Tanks

was inserted in the aforesaid newspaper in space, and on dates as follows:

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
May 1985																															

The above is correctly copied from the books and files of the aforesaid Corporation and publication.

SEAL

M. L. Finch, Jr.
Title Secretary & Treasurer

Sworn or affirmed to, and subscribed before me, this 21st day of

May, A. D. 1985.
In Testimony Whereof, I have hereunto set my hand and affixed my official seal, the day and year aforesaid.

[Signature]
Notary Public.

My commission expires 2nd day of July, 1985.

Department of Human Resources
 Division of Health Services
 Solid and Hazardous Waste Management Branch

APPLICATION FOR CHANGE IN CLASSIFICATION UNDER RCRA

Date: 8/7/85

Company Name: WESTINGHOUSE ELECTRIC

Company Address: 2728 NORTH BLVD.

RALEIGH, NC 27611

EPA ID No: NC D003195963

Mr. O. W. Strickland, Head
 Solid & Hazardous Waste Management Branch
 Division of Health Service
 Post Office Box 2091
 Raleigh, N.C. 27602

Dear Mr. Strickland:

Our Company requests the following change in its classification under RCRA (check all that apply):

<u>Add As</u>	<u>Delete As</u>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Generator
<input type="checkbox"/>	<input type="checkbox"/>	Transporter
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Treater
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Storer
<input type="checkbox"/>	<input type="checkbox"/>	Disposer
<input type="checkbox"/>	<input type="checkbox"/>	Small Generator

The reason for this request is:

WE NO LONGER CONDUCT TREATMENT OR STORAGE AND HAVE
CLOSED THE TREATMENT AND STORAGE AREAS UNDER
AN APPROVED CLOSURE PLAN.

NOTES: 1) Be specific. Give all pertinent information. This may be a change in your process; a change in your handling procedures; new analyses, or the like.

2) This is not a delisting petition with respect to a listed waste.

- 3) If you are requesting deletion as a treater, storer, or disposer, our branch will immediately institute steps to terminate your interim status. The termination process will include a public notice in your local paper to the effect that interim status has been terminated for this plant. Thus, in this case we must insist that your request be signed by a major corporate officer.
- 4) If this request involves small generator status, it must include an accurate statement of your present and anticipated waste generation. This is necessary because changes in the small generator definition are expected. (Attach an additional sheet.)

If your request would remove your plant from the regulated system, but you wish to retain an EPA ID Number, please give your reasons.

I understand that my company must supply information about any changes in its operations which might change its status again to our office on its own initiative.

I certify that the information supplied is accurate and correct to the best of my knowledge and belief.

I am authorized to make this request on behalf of my company at the location give. (Refer again to notes 3 and 4 before signing.)

Name (printed or typed): JOHN S. ROBINSON

Signature: John S. Robinson

Company Title: GENERAL MANAGER

RALEIGH METER DIVISION

WESTINGHOUSE ELECTRIC CORPORATION

ATTACHMENT I

Sampling Results for Closure of Hazardous Waste Treatment & Storage Area

<u>SAMPLE ID</u>	<u>EP-TOX Copper mg/l</u>	<u>EP-TOX Nickel mg/l</u>	<u>EP-TOX Cadmium mg/l</u>	<u>EP-TOX Chromium mg/l</u>	<u>EP-TOX Lead mg/l</u>
Flat Area Soil Composite #1	0.07	0.07	< 0.02	< 0.02	< 0.1
Flat Area Soil Composite #2	0.15	0.06	< 0.02	< 0.02	< 0.1
Tank Wall Sample	0.03	< 0.01	< 0.02	0.09	< 0.1

<u>SAMPLE ID</u>	<u>Total Copper mg/kg</u>	<u>Total Nickel mg/kg</u>	<u>Total Cadmium mg/kg</u>	<u>Total Chromium mg/kg</u>	<u>Total Lead mg/kg</u>
Flat Area Soil Composite #1	250	44	7.5	58	31
Flat Area Soil Composite #2	280	40	9.0	62	19
Tank Wall Sample	130	8.5	1.0	170	8.5

Cyanide Leached in DI Water µg/l

Flat Area Soil Composite #1	100
Flat Area Soil Composite #2	240
Tank Wall Sample	50

Attachment II

Shipping Manifests for Hazardous Waste Closure

South Carolina Department of Health and Environmental Control

ON-SITE INSPECTOR
S.C. DEPT. OF HEALTH
& ENVIRONMENTAL CONTROL

Print or type (Form designed for use on eight (12 pitch) typewriter)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest
Document No.

2. Page 1

Information in the shaded areas
is not required by Federal
law, but is by State law.

N 10101013119151916310011215

3. Generator's Name and Mailing Address

WESTINGHOUSE ELECTRIC CORP.

2728 North Blvd.

RALEIGH, NC 27604

4. Generator's Phone (919) 834-5271

5. Transporter 1 Company Name

WILLMS TRUCKING

6. US EPA ID Number

SC 100713171019121917

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address

GSX SERVICES INC.

ROUTE 1, BOX 255

PINEWOOD, SC 29125

10. US EPA ID Number

SC 100710131715191815

A. Site Manifest Document Number

B. State Generator's ID

C. State Transporter's ID

D. Transporter's Phone (803) 767-3333

E. State Transporter's ID

F. Transporter's Phone

G. State Facility's ID

H. Facility's Phone

(803) 452-5003

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

a. HAZARD WASTE, SOLID N.O.S., ORM-E, NA9189

12. Containers No.	Type	13. Total Quantity	14. Unit Vol	1. Waste No.
11	TP	1000	00	F 0106

J. Additional Descriptions for Materials Listed Above

a. P.W. - 156 - 1106 c. - - -
b. - - - d. - - -

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

WORK ORDER NUMBER GSX44470

TYPE OF CONTAINER: Cement mixer used for mixing Hazardous Waste, Solid N.O.S., ORM-E, NA9189

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and State laws.

Printed/Typed Name HENRY V. SKINNER JR.,	Signature <i>Henry V. Skinner Jr.</i>	Date Month Day Year 01 6 01 5 8 15
17. Transporter 1 Acknowledgement of Receipt of Materials		Date
Printed/Typed Name <i>CHRISTOPHER JONES</i>	Signature <i>Christopher Jones</i>	Month Day Year 01 6 01 5 8 15
18. Transporter 2 Acknowledgement of Receipt of Materials		Date
Printed/Typed Name	Signature	Month Day Year

19. Discrepancy Indication Space

a. 260 lbs. c.
b. lbs. d.
12/1/15

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted on



South Carolina Department of Health and Environmental Control

Bureau of Solid & Hazardous Waste Mgt.
1400 Bull Street, Col. SC 29201
(803) 738-
Gandy & Hollenhorst (801) 2511

ess print or type. (Form designed for use on slide (12-pitch) typewriter.)

Form Approved OMB No. 2000-0000

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in this sheet is not required by law, but is by State	
3. Generator's Name and Mailing Address Westinghouse Elec. Corp. 2728 North Blvd. Raleigh N.C. 27604		N.C.D.0.0.3.1.9.5.9.6.3.0.0.1.1.2.1.6		A. State Manifest Document Number		
4. Generator's Phone (919) 834-5271		5. US EPA ID Number		B. State Generator's ID		
6. Transporter 1 Company Name Bryson Environmental		S.C.D.0.0.1.8.1.2.1.3.1.1.1.2.1		C. State Transporter's ID		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone (803) 796-6408		
9. Designated Facility Name and Site Address GSX Services Inc. Route 1 Box 255 Pinewood S.C. 29125		10. US EPA ID Number		E. State Transporter's ID		
S.C.D.0.7.0.3.7.5.9.8.5		11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		F. Transporter's Phone		
		12. Containers		G. State Facility's ID		
		13. Total		H. Facility's Phone (803) 452-5003		
		14. Unit		I. Waste ID		
Hazard Waste, Solid, N.O.S., ORM-E, NA9189		12/3 DIH		11/2/16/15		F101016
Waste, Poisonous Solid, N.O.S., Poison B, UN2811		15/7 DIH		13/1/3/5		F101016
		18/0 DIH				
J. Additional Descriptions for Materials Listed Above		K. Handling Codes for Wastes Listed Above				
a. PW-1,5,6,1-1,1,0,2		c. - - - - -				
b. PW-1,5,6,1-1,1,0,4		d. - - - - -				
16. Special Handling Instructions and Additional Information Work Order # 46016						
18. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and State laws.						
Printed/Typed Name Henry V. Skinner, Jr.		Signature <i>Henry V. Skinner Jr.</i>		Date Month Day Year 10 16 12 17 18 15		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Alan Brunsford		Signature <i>Alan Brunsford</i>		Date Month Day Year 10 16 12 17 18 15		
18. Transporter 2 Acknowledgement or Receipt of Materials						
Printed/Typed Name		Signature		Date Month Day Year		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name		Signature		Date Month Day Year		

Attachment III
Certification of Closure

July 18, 1985

William L. Klotz, PE
ChemEnco, Inc.
P.O. Box 13363
Research Triangle Park, NC
27709

Westinghouse Electric Co.
Raleigh Plant
Electronics Measurement and Control
Business Unit
2728 North Blvd.
P.O.Box 9533
Raleigh, N.C. 27604

Dear Sirs:

This letter is to confirm and provide certification for closure of your hazardous waste treatment facility, consisting of wastewater sludge treatment tanks, mixer, and associated piping, in accordance with the Westinghouse closure plan dated May 16, 1984.

I have conducted site visits during cleanup, reviewed shipping manifests for the materials involved, and reviewed required analytical results for samples at the test site. EP toxicity tests nowhere indicated a leachable contaminants level greater than 10 times drinking water standards.

Sincerely,

William L. Klotz

William L. Klotz, PE
NC Registration No. 9532

file: C1



Westinghouse
Electric Corporation

Energy Metering
and Control Division



Box 9533
Raleigh North Carolina 27611
(919) 834 5271

May 8, 1986

23

Jerry Rhodes
Solid & Hazardous Waste Management Branch
Environmental Health Section
Division of Health Services
P. O. Box 2091
Raleigh, North Carolina 27602

Dear Mr. Rhodes:

Attached is a copy of the Fourth Quarterly groundwater
sampling done under our solid waste closure plan.

David Daugherty
Sr. Manufacturing Engineer

Enc.



Industrial & Environmental Analysts, Inc.

P.O. Box 12542 • Research Triangle Park, NC 27709 • 919-467-9919

April 23, 1986



Mr. David Daugherty
Westinghouse Electric Corporation
P.O. Box 9533
Raleigh, NC 27611

Reference: IEA Report No. 230-39

Dear Mr. Daugherty:

Transmitted herewith are the results of analyses on four samples submitted to our laboratory on April 16, 1986.

		<u>Well #1</u>	<u>Well #2</u>	<u>Well #3</u>	<u>Well #4</u>
Copper	mg/L	<0.02	<0.02	<0.02	0.12
Nickel	mg/L	<0.03	<0.03	<0.03	<0.03
Chromium	mg/L	<0.03	<0.03	<0.03	<0.03
Lead	mg/L	<0.1	<0.1	<0.1	<0.01
Cadmium	mg/L	<0.01	<0.01	<0.01	<0.01
Cyanide	mg/L	<0.04	0.14	<0.04	<0.04

Very truly yours,

INDUSTRIAL & ENVIRONMENTAL ANALYSTS, INC.

Joseph B. Adamovic
Joseph B. Adamovic
Senior Chemist

JBA/sbm

Offices and laboratories located in: Essex Junction, Vermont
Research Triangle Park, North Carolina

April 23, 1986
IEA Report No. 230-39

WESTINGHOUSE GROUNDWATER WELL DATA

Sampling Date: April 15, 1986

	<u>Well I.D.</u>			
	<u>No. 1</u>	<u>No. 2</u>	<u>No. 3</u>	<u>No. 4</u>
Well Depth	25.00	22.50	23.00	25.00
Water Depth Before Pump (Feet)	23.71	16.87	22.35	24.13
Water Depth After Pump (Feet)	25.00	-----	23.00	25.00
Depth of One Well Volume (Feet)	1.29	5.63	0.65	0.87
Decrease from Pumping (Feet)	1.29	5.63	0.65	0.87
Time Start Pump	-----	10:00	-----	-----
Time of Sample	12:25	11:20*	13:21	13:45
Total Time Pumped	Bailed	1 Hr.20 min.	Bailed	Bailed
Approximate Pump Rate	N/A	500 ml/min.	N/A	N/A
Conductivity, μ hos/cm	170	1150	450	230
pH	6.7	6.4	6.3	6.5

*21 minute recharge allowed.

All depths given in feet.

All samples taken with bailer.

Westinghouse
Electric Corporation

Energy Metering
and Control Division

Box 9533
Raleigh North Carolina 27811
(919) 834 5271

January 21, 1986




Mr. Bob Glaser
Solid & Hazardous Waste Management Branch
P. O. Box 2091
Raleigh, North Carolina 27602-2091

Dear Mr. Glaser:

Attached are our results for the quarterly
well sampling done January 6, 1986.

Yours truly,


David Daugherty
Sr. Manufacturing Engineer



Industrial & Environmental Analysts, Inc.

P.O. Box 12542 • Research Triangle Park, NC 27709 • 919-467-9919

January 13, 1986

David Daugherty
Westinghouse Electric Co.
P.O. Box 9533
Raleigh, NC 27611

Reference: IEA Report No. 230-22

Dear Mr. Daugherty:

Transmitted herewith are the results of analyses on five samples submitted to our laboratory on January 7, 1986.

Please see the attached sheet for your results.

Very truly yours,

INDUSTRIAL & ENVIRONMENTAL ANALYSTS, INC.

A handwritten signature in dark ink, appearing to read "Joseph B. Adamovic", is written over the typed name.
Joseph B. Adamovic
Senior Chemist

JBA/abm

Enclosure

Offices and laboratories located in Essex Junction, Vermont
Research Triangle Park, North Carolina

January 13, 1986
IEA REPORT NO. 230-22

		<u>Well #1A</u>	<u>Well #1</u>	<u>Well #2</u>	<u>Well #3</u>	<u>Well #4</u>
Bromodichloromethane	µg/L	< 10	< 10	< 10	< 10	< 10
Bromoform	µg/L	< 10	< 10	< 10	< 10	< 10
Bromomethane	µg/L	< 10	< 10	< 10	< 10	< 10
Carbon tetrachloride	µg/L	< 10	< 10	< 10	< 10	< 10
Chlorobenzene	µg/L	< 10	< 10	< 10	< 10	< 10
Chloroethane	µg/L	< 10	< 10	< 10	< 10	< 10
2-Chloroethylvinyl ether	µg/L	< 10	< 10	< 10	< 10	< 10
Chloroform	µg/L	< 10	< 10	< 10	< 10	< 10
Chloromethane	µg/L	< 10	< 10	< 10	< 10	< 10
Dibromochloromethane	µg/L	< 10	< 10	< 10	< 10	< 10
1,2-Dichlorobenzene	µg/L	< 10	< 10	< 10	< 10	< 10
1,3-Dichlorobenzene	µg/L	< 10	< 10	< 10	< 10	< 10
1,4-Dichlorobenzene	µg/L	< 10	< 10	< 10	< 10	< 10
Dichlorodifluoromethane	µg/L	< 10	< 10	< 10	< 10	< 10
1,1-Dichloroethane	µg/L	< 10	< 10	< 10	< 10	< 10
1,2-Dichloroethane	µg/L	< 10	< 10	< 10	< 10	< 10
1,1-Dichloroethene	µg/L	< 10	< 10	< 10	< 10	< 10
trans-1,2-Dichloroethene	µg/L	< 10	< 10	< 10	< 10	< 10
1,2-Dichloropropane	µg/L	< 10	< 10	< 10	< 10	< 10
cis-1,3-Dichloropropene	µg/L	< 10	< 10	< 10	< 10	< 10
trans-1,3-Dichloropropene	µg/L	< 10	< 10	< 10	< 10	< 10
Methylene chloride	µg/L	< 10	< 10	< 10	< 10	< 10
1,1,2,2-Tetrachloroethane	µg/L	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	µg/L	< 10	< 10	57	< 10	< 10
1,1,1-Trichloroethane	µg/L	< 10	< 10	< 10	< 10	< 10
1,1,2-Trichloroethane	µg/L	< 10	< 10	< 10	< 10	< 10
Trichloroethene	µg/L	< 10	< 10	61	12	< 10
Trichlorofluoromethane	µg/L	< 10	< 10	< 10	< 10	< 10



Industrial & Environmental Analysts, Inc.

P.O. Box 12542 • Research Triangle Park NC 27709 • 919-467-9919

January 15, 1986

David Daugherty
Westinghouse Electric Co.
2728 North Blvd.
P.O. Box 9533
Raleigh, NC 27604

Reference: IEA Report No. 230-21

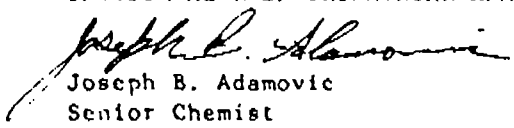
Dear Mr. Daugherty:

Transmitted herewith are the results of analyses on five samples submitted to our laboratory on January 6, 1986.

		<u>Well #1A</u>	<u>Well #1</u>	<u>Well #2</u>	<u>Well #3</u>	<u>Well #4</u>
Copper	mg/L	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Nickel	mg/L	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Chromium	mg/L	0.05	< 0.03	< 0.03	< 0.03	< 0.03
Lead	mg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Cadmium	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cyanide	mg/L	< 0.02	< 0.02	0.10	< 0.02	< 0.02

Very truly yours,

INDUSTRIAL & ENVIRONMENTAL ANALYSTS, INC.


Joseph B. Adamovic
Senior Chemist

JBA/sbm

Offices and laboratories located in
Essex Junction, Vermont
Research Triangle Park North Carolina

21
Westinghouse
Electric Corporation

Energy Metering
and Control Division

Box 9533
Raleigh North Carolina 27611
(919) 834 5271

December 19, 1985

Mr. Bob Glaser
Solid & Hazardous Waste Management Branch
P. O. Box 2091
Raleigh, North Carolina 27602-2091




Dear Mr. Glaser:

We have completed Well #1A as a replacement for Well #1 in accordance with W. L. Meyer's letter of 10/25/85. We will be sampling all four original wells plus the replacement well January 6, 1986. If your office wants to split samples at this time you can contact me at 834-5271.

I have enclosed some volatiles sampling results we did on these wells.

Yours truly,


David Daugherty
Sr. Manufacturing Engineer



VOLATILE FRACTION

CLIENT SAMPLE NO. Well #1 10/24/85 SAMPLE

IEA SAMPLE NO. 230-10-1

NUMBER	COMPOUNDS	DETECTION LIMIT (µg/L)	CONCENTRATION (µg/L)
1	ACROLEIN	100	BDL*
2	ACRYLONITRILE	100	BDL
3	BENZENE	10	BDL
4	Bis(CHLOROMETHYL) ETHER	10	BDL
5	BROMODICHLOROMETHANE	10	BDL
6	BROMOFORM	10	BDL
7	BROMOMETHANE	10	BDL
8	CARBON TETRACHLORIDE	10	BDL
9	CHLOROBENZENE	10	BDL
10	CHLOROETHANE	10	BDL
11	2-CHLOROETHYL VINYL ETHER	10	BDL
12	CHLOROFORM	10	BDL
13	CHLOROMETHANE	10	BDL
14	DIBROMOCHLOROMETHANE	10	BDL
15	DICHLORODIFLUOROMETHANE	10	BDL
16	1,1-DICHLOROETHANE	10	BDL
17	1,2-DICHLOROETHANE	10	BDL
18	1,1-DICHLOROETHYLENE	10	BDL
19	trans-1,2-DICHLOROETHYLENE	10	BDL
20	1,2-DICHLOROPROPANE	10	BDL
21	1,3-DICHLOROPROPENE	10	BDL
22	ETHYLBENZENE	10	BDL
23	METHYLENE CHLORIDE	10	BDL
24	1,1,2,2-TETRACHLOROETHANE	10	BDL
25	1,1,2,2-TETRACHLOROETHENE	10	BDL
26	TOLUENE	10	BDL
27	1,1,1-TRICHLOROETHANE	10	17.
28	1,1,2-TRICHLOROETHANE	10	BDL
29	TRICHLOROETHYLENE	10	BDL
30	TRICHLOROFLUOROMETHANE	10	BDL
31	VINYL CHLORIDE	10	BDL

*BDL - BELOW DETECTION LIMIT

October 10, 1985
IEA REPORT NO. 230-7

10/7/85 SAMPLES

		Well #1	Well #2	Well #3	Well #4
Bromodichloromethane	µg/L	< 10	< 10	< 10	< 10
Bromoform	µg/L	< 10	< 10	< 10	< 10
Bromomethane	µg/L	< 10	< 10	< 10	< 10
Carbon tetrachloride	µg/L	< 10	< 10	< 10	< 10
Chlorobenzene	µg/L	< 10	< 10	< 10	< 10
Chloroethane	µg/L	< 10	< 10	< 10	< 10
2-Chloroethylvinyl ether	µg/L	< 10	< 10	< 10	< 10
Chloroform	µg/L	< 10	< 10	< 10	< 10
Chloromethane	µg/L	< 10	< 10	< 10	< 10
Dibromochloromethane	µg/L	< 10	< 10	< 10	< 10
1,2-Dichlorobenzene	µg/L	< 10	< 10	< 10	< 10
1,3-Dichlorobenzene	µg/L	< 10	< 10	< 10	< 10
1,4-Dichlorobenzene	µg/L	< 10	< 10	< 10	< 10
Dichlorodifluoromethane	µg/L	< 10	< 10	< 10	< 10
1,1-Dichloroethane	µg/L	< 10	< 10	< 10	< 10
1,2-Dichloroethane	µg/L	< 10	< 10	< 10	< 10
1,1-Dichloroethene	µg/L	< 10	< 10	< 10	< 10
trans-1,2-Dichloroethene	µg/L	< 10	< 10	< 10	< 10
1,2-Dichloropropane	µg/L	< 10	< 10	< 10	< 10
cis-1,3-Dichloropropene	µg/L	< 10	< 10	< 10	< 10
trans-1,3-Dichloropropene	µg/L	< 10	< 10	< 10	< 10
Methylene chloride	µg/L	< 10	< 10	< 10	< 10
1,1,2,2-Tetrachloroethane	µg/L	< 10	< 10	< 10	< 10
Tetrachloroethene	µg/L	< 10	22	< 10	< 10
1,1,1-Trichloroethane	µg/L	56	< 10	< 10	39
1,1,2-Trichloroethane	µg/L	< 10	< 10	< 10	< 10
Trichloroethene	µg/L	< 10	33	< 10	< 10
Trichlorofluoromethane	µg/L	< 10	< 10	< 10	< 10



Westinghouse
Electric Corporation

Electronics, Measurement
and Control Divisions

Box 9533
Raleigh North Carolina 27611
(919) 834 5271

2^D

October 18, 1985

Mr. William Meyer, Head
Solid and Hazardous Waste
Management Branch
Environmental Health Section
Division of Health Services
P. O. Box 2091
Raleigh, NC 27602-2091



Dear Mr. Meyer:

As you are aware, we have completed the initial phase of our solid waste closure plan of February 20, 1985 by removing all wastes to the secure landfill in Pinewood, South Carolina. We are now taking quarterly samples from four groundwater wells. By this letter, we are requesting your permission to move Well No. 1 approximately 50 feet from its current location.

The four wells were originally placed in a down-gradient arc of about 120° around the waste site. This resulted in Well No. 1 being placed outside the plant security fence where it interferes with future use of the property. In five samples over the last 10 months, Well No. 1 has shown no groundwater contaminants from the waste site. (See Attachment #1) We propose to replace this well with a new one at the same level in the water table, but closer to where the solid wastes were located. We will remove the casing and plug existing Well No. 1. The other three wells would not be changed. Figure 1 shows the location and construction of our proposed well.

Replacement of Well No. 1 with a new well which is screened at the same depth in the water table, and which is closer to the waste site, will increase the likelihood of detecting any contaminants which might have originated from the waste site. Thus, we believe that this change will strengthen the monitoring program while allowing us to bring all the wells inside our fence.

We would like to make this change immediately. May we have your reply as quickly as possible?

John S. Robinson, General Manager
Raleigh Meter Division

0127L/WP

ATTACHMENT I

WELL SAMPLING RESULTS





Industrial & Environmental Analysts, Inc.

P.O. Box 12042 • Research Triangle Park, NC 27709 • 919-467-9919

October 10, 1985

David Daugherty
Westinghouse Electric Corp.
2728 North Blvd.
P.O. Box 9533
Raleigh, NC 27604



Reference: IEA Report No. 230-7

Dear Mr. Daugherty:

Transmitted herewith are the results of analyses on four samples submitted to our laboratory on October 7, 1985.

		<u>Well #1</u>	<u>Well #2</u>	<u>Well #3</u>	<u>Well #4</u>
Copper	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
Nickel	mg/L	< 0.03	0.04	< 0.03	< 0.03
Chromium	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Lead	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Cadmium	mg/L	< 0.01	0.01	< 0.01	< 0.01
Cyanide	mg/L	< 0.02	0.10	< 0.02	< 0.02

Very truly yours,

INDUSTRIAL & ENVIRONMENTAL ANALYSTS, INC.

Joseph B. Adamovic

Joseph B. Adamovic
Senior Chemist

JBA/sbm

Enclosures

Offices and laboratories located in
Essex Junction, Vermont
Research Triangle Park, North Carolina

October 10, 1985
IEA REPORT NO. 230-7



WESTINGHOUSE GROUNDWATER WELL DATA

Sampling Date: October 7, 1985

	<u>Well I.D. No.</u>			
	<u>No.1</u>	<u>No.2</u>	<u>No.3</u>	<u>No.4</u>
Well Depth	25.00	22.50	23.00	25.00
Water Depth Before Pump	20.59	15.06	18.24	21.84
Water Depth After Pump	21.58	18.26	19.04	23.00
Decrease from Pumping	0.99	3.20	0.80	1.75
Time Start Pump	10:30	10:55	13:50	13:55
Time of Sample	11:35	13:35	15:15	15:30
Total Time Pumped	1.1 hrs.	2.7 hrs.	1.4 hrs.	1.6 hrs.
Approximate Pump Rate at beginning, gal/min	.75	.75	.75	.75
Conductivity, μ mhos/cm	74.6	1130	430	220
pH	6.1	6.6	6.6	6.4

All depths are given in feet



Industrial & Environmental Analysts, Inc.

P.O. Box 12542 • Research Triangle Park, NC 27709 • 919-467-9919



July 9, 1985

Mr. David Daugherty
Westinghouse Electric Corporation
P.O. Box 9533
Raleigh, NC 27611

Reference: IEA Report No. 230-6

Dear Mr. Daugherty:

Transmitted herewith are the results of analyses on four samples submitted to our laboratory on July 1, 1985.

		Well #1	Well #2	Well #3	Well #4
Copper	mg/l	0.06	0.14	0.12	0.09
Nickel	mg/l	< 0.03	0.06	< 0.03	< 0.03
Chromium	mg/l	< 0.03	< 0.03	< 0.03	< 0.03
Lead	mg/l	< 0.1	< 0.1	< 0.1	< 0.01
Cadmium	mg/l	< 0.01	0.03	0.02	< 0.01
Cyanide	mg/l	< 0.02	0.19	< 0.02	< 0.02

Very truly yours,

INDUSTRIAL & ENVIRONMENTAL ANALYSTS, INC.

Joseph B. Adamovic
Senior Chemist

JBA/shn

Offices and laboratories located in
Essex Junction, Vermont
Research Triangle Park, North Carolina

Mr. David Daugherty
Reference: EIS Report 1-230-0
July 16, 1985

WESTINGHOUSE GROUNDWATER WELL DATA

Sampling Date: July 1, 1985

Well I.D.

	<u>No. 1</u>	<u>No. 2</u>	<u>No. 3</u>	<u>No. 4</u>
Well Depth	25.00	22.50	23.00	25.00
Water Depth Before Pump	*	13.22	16.10	20.00
Water Depth After Pump	-----	22.00	22.70	25.00
Depth of One Well Volume	-----	9.28	6.90	5.00
Decrease from Pumping	-----	8.78	6.60	5.00
Time Start Pump	-----	11:05	12:45	11:30
Time of Sample	-----	12:15	13:50	13:00
Total Time Pumped	-----	1.7hrs.	1.7hrs.	1.5hrs.
Approximate Pump Rate, gal/min	.75	.75	.75	.75
Conductivity, uhms/cm	110	1180	500	200
pH	6.5	6.6	6.6	6.5

All depths given in feet

All samples taken with bailer

INSUFFICIENT WATER TO PUMP, WELL EVACUATED WITH BAILER.



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STATE LABORATORY OF PUBLIC HEALTH
DIVISION OF HEALTH SERVICES
N.C. DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

REPORT: E70RSL30

INORGANIC CHEMICAL ANALYSIS
SITE

DATE: 05/24/85

Site No.:

92D003195963

Field Sample Number: 002077

Name of Site: Westinghouse Elec Meter & Lvit

Type of Sample: ENVIRONMENTAL GROUND

Collected on: Date: 04/23/85 Time: 0155PM Collected By: GLASER



PARAM ID	NAME	METHOD	MG/L RESULTS	PARAM ID	NAME	METHOD	MG/L RESULTS
1005T	ARSENIC	125 <	0.0100	1040	NITRATE	163	1.2000
1010T	BARIUM	101	0.2000	1045T	SELENIUM	125 <	0.0050
1015T	CADMIUM	101 <	0.0050	1050T	SILVER	101 <	0.0500
1017	CHLORIDE		2.0000	1052	SODIUM	101	6.0000
1020T	CHROMIUM	101	0.0100	1055	SULFATE	137 <	1.0000
1022	COPPER	101 <	0.0500	1095	ZINC	101	0.1100
1024	CYANIDE	107 <	0.4000	1925	PH	135	6.2000
1025	FLUORIDE	107 <	0.1000	1926	CONDUCTIVITY	000	82.0000
1028	IRON	101	10.3000	1930	TDS	139	96.0000
1030T	LEAD	101 <	0.0300	1010	TOC	000 <	5.0000
1032	MANGANESE	101	0.2700				
1035T	MERCURY	103	0.0002				
1036	NICKEL	101 <	0.0500				

Date Received: 04/25/85 Date Reported: 05/20/85 Date Analyzed: 04/25/85
Laboratory Number: 508877 Reported By: Comments: WELL 1

Mildred A. Kerbaugh
Director

N. C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
STATE LABORATORY OF PUBLIC HEALTH
P. O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

Number 92000-3195963 Field Sample Number 1730
Name of Site Weatherhouse Site Location Raleigh
Collected By Glaser ID# _____ Date Collected 4/23/85 Time 1:35

Type of Sample:

Environmental
☒ Groundwater
☐ Surface Water
☐ Soil
☐ Other

Concentrate
☐ Solid
☐ Liquid
☐ Sludge
☐ Other

Well #1

Comments

INORGANIC CHEMISTRY

Extractables		Total		Parameter	Results mg/l
Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
Arsenic		Arsenic		Chloride	
Barium		Barium		Conductivity	
Cadmium		Cadmium		Copper	
Chromium		Chromium		Fluoride	
Lead		Lead		Iron	
Mercury		Mercury		Manganese	
Selenium		Selenium		Nitrate	
Silver		Silver		pH	
				Sulfates	
				TDS	
				Zinc	
				TOC	

ORGANIC CHEMISTRY

Parameter	Results mg/l	Parameter	Results mg/l	Parameter	Results mg/l
Endrin		Toxaphene		PCB's	
Lindane		2,4-D		Petroleum	
Methoxychlor		2,4,5-TP (Silvex)		EDB	
<input checked="" type="checkbox"/> VOA <u>None detected</u>		<input checked="" type="checkbox"/> 2,4,6-TP <u>None detected</u>		TOX	<u>43.2 ug/l CO-</u>
		<input checked="" type="checkbox"/> B/N <u>None detected</u>			

MICROBIOLOGY

Parameter
(MF) Coliform Colonies/100mls
(MPN) Coliform Colonies/100mls

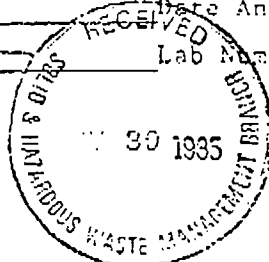
RADIOCHEMISTRY

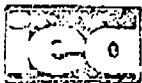
Parameter	Results PCi/l
Gross Alpha	
Gross Beta	

Date Received 4/24/85 Date Reported 5-30-85

Date Extracted 4-24-85 Date Analyzed 4/25/85

Reported By John L. Neal Lab Number 501526





Industrial & Environmental Analysts, Inc.

P.O. Box 125 • Research Triangle Park, NC 27709 • 919-467-9919

May 8, 1985



Mr. David Daugherty
Westinghouse Electric Corporation
P.O. Box 9533
Raleigh, NC 27611

Reference: IEA Report No. 230-4

Dear Mr. Daugherty:

Transmitted herewith are the results of analyses on four samples submitted to our laboratory on April 24, 1985.

		Well No. 1	Well, No. 2	Well No. 3	Well No. 4
Copper	mg/l	< 0.02	0.02	< 0.02	< 0.02
Nickel	mg/l	0.05	< 0.03	< 0.03	< 0.03
Chromium	mg/l	< 0.03	< 0.03	< 0.03	< 0.03
Lead	mg/l	< 0.1	< 0.1	< 0.1	< 0.1
Cadmium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01
Cyanide	mg/l	0.02	0.19	0.06	< 0.02

Very truly yours,

INDUSTRIAL & ENVIRONMENTAL ANALYSTS, INC.

Joseph B. Adamov
Senior Chemist

USA: 958

Dr. David Longherty
Reference: O&A Report No. 1004
March 23, 1985

WESTINGHOUSE GROUNDWATER WELL DATA

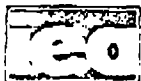
Sampling Date: March 23, 1985

Well I.D.

	<u>No. 1</u>	<u>No. 2</u>	<u>No. 3</u>	<u>No. 4</u>
Well Depth*	25:00	22:50	23:00	25:00
Water Depth Before Pump	17:13	11:77	15:31	18:78
Water Depth After Pump	21:14	19:75	15:12	18:41
Depth of One Well Volume	7:87	10:73	7:69	6:22
Depth from Pumping	4:01	7:98	0:19	0:37
Time Start Pump	12:10	11:40	10:00	9:40
Time of Sample	13:50	13:10	11:45	10:45
Total Time Pumped	1 hr/40 min	1 hr/30 min	1 hr/45 min	1 hr/5 min
Approximate Pump Rate	.75 gal/min	.75 gal/min	.75 gal/min	.75 gal/min
Conductivity & Temperature	90 mcghms	1230 mcghms	720 mcghms	220 mcghms
pH	5:95	6:10	6:20	6:30

* All depths given in feet and decimal feet





Industrial & Environmental Analysts, Inc.

P.O. Box 125 • Research Triangle Park, NC 27709 • 919-467-9919



January 24, 1985

Mr. David Daugherty
Westinghouse Electric Corporation
P. O. Box 9533
Raleigh, NC 27611

Reference: IEA Report No. 230-3

Dear Mr. Daugherty:

Transmitted herewith are the results of analyses on four samples submitted to our laboratory on January 16, 1985.

		<u>Well #1</u>	<u>Well #2</u>	<u>Well #3</u>	<u>Well #4</u>
Copper	mg/l	< 0.02	0.03	< 0.02	< 0.02
Nickel	mg/l	< 0.03	< 0.03	< 0.03	< 0.03
Chromium	mg/l	< 0.03	< 0.03	< 0.03	< 0.03
Lead	mg/l	< 0.1	< 0.1	< 0.1	< 0.1
Cadmium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01
Cyanide	mg/l	< 0.02	0.23	< 0.02	< 0.02

Very truly yours,

INDUSTRIAL & ENVIRONMENTAL ANALYSTS, INC.

Joseph B. Adamovic

Joseph B. Adamovic
Senior Chemist

JBA/kbd

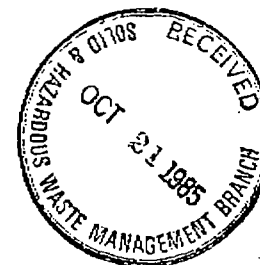
Offices and laboratories located in: Essex Junction, Vermont
Research Triangle Park, North Carolina

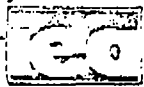
WESTINGHOUSE GROUND WATER WELL DATA

Sampling Date: January 15, 1985

Well I.D.

	#1	#2	#3	#4
Well Depth	25.75'	22.50'	22.75'	25.80'
Water Depth Before Pump	16.01'	11.22'	14.89'	18.14'
Water Depth After Pump	21.14'	19.75'	15.12'	18.41'
Depth of One Well Volume	9.74'	11.28'	7.86'	7.66'
Depth from Pumping	5.13'	8.53'	0.23'	0.27'
Time Start Pump	13:40	13:50	11:30	11:25
Time of Sample	15:20	15:30	13:15	13:10
Total Time Pumped	1.50 hrs	1.50 hrs	1.75 hrs	1.75 hrs
Approximate Pump Rate	1 L/min	1 L/min	1.5 L/min	1.5 L/min
Conductivity & Temperature	110 @22.0°C	855 @21.9°C	559 @20.4°C	181 @22.4°C
pH	6.2	6.1	6.2	5.7





Industrial & Environmental Analysts, Inc.

P.O. Box 12542 • Research Triangle Park, NC 27709 • 919-467-9919

December 18, 1984



Mr. David Daugherty
Westinghouse Electric Corporation
P. O. Box 9533
Raleigh, NC 27611

Reference: IEA Report No. 230-2

Dear Mr. Daugherty:

Transmitted herewith are the results of analyses on four samples submitted to our laboratory on December 14, 1984.

		<u>Well #1</u>	<u>Well #2</u>	<u>Well #3</u>	<u>Well #4</u>
Copper	mg/l	< 0.02	0.14	< 0.02	< 0.02
Nickel	mg/l	< 0.03	0.04	< 0.03	< 0.03
Chromium	mg/l	< 0.03	< 0.03	< 0.03	< 0.03
Lead	mg/l	< 0.1	< 0.1	< 0.1	< 0.01
Cadmium	mg/l	< 0.01	0.03	< 0.01	< 0.01
Cyanide	mg/l	< 0.02	0.10	< 0.02	< 0.02

Very truly yours,

INDUSTRIAL & ENVIRONMENTAL ANALYSTS, INC.

Joseph B. Adamovic
Senior Chemist

JBA/kbd

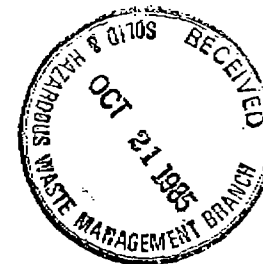
Offices and laboratories located in: Essex Junction, Vermont
Research Triangle Park, North Carolina

WESTINGHOUSE GROUND WATER WELL DATA

Sampling Date: December 14, 1984

Well I.D.

	#1	#2	#3	#4
Well Depth	26.00'	22.48'	22.75'	25.80'
Water Depth Before Pump	15.45'	11.07'	14.78'	18.07'
Water Depth After Pump	18.44'	18.47'	14.91'	18.14'
Depth of One Well Volume	10.55'	11.41'	7.91'	7.73'
Depth from pumping	2.99'	7.40'	0.13'	0.07'
Time Start Pump	9:30	12:25	11:40	9:15
Time of Sample	11:45	2:20	1:45	10:45
Total Time Pumped	2.25 hrs	1.90 hrs	2.08 hrs	1.50 hrs
Approximate Pumping Rate	1 L/min	1 L/min	1.5 L/min	1.5 liter/min
Conductivity & Temperature	10.43 x 10 = 104.3 @20.7°C	7.81 x 100 = 781 @20.2°C	6.08 x 100 = 608 @20.0°C	1.53 x 100 = 153 21.7°C
pH	5.7	6.9	6.5	5.9



North Carolina Administrative Code

Title 15A

Department of Environment and Natural Resources
Division of Water Quality



Subchapter 2L

Sections .0100,
.0200, and .0300

**Classifications and
Water Quality
Standards
Applicable To The
Groundwaters of
North Carolina**

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES

DAVID A. HANCE
ENVIRONMENTAL SPECIALIST II
GROUNDWATER SECTION
DIVISION OF WATER QUALITY



P.O. BOX 29578, RALEIGH, NC 27626-0578
2726 CAPITAL BOULEVARD, RALEIGH, NC 27604
PHONE 919-715-6189 FAX 919-715-0588
david_hance@mail.enr.state.nc.us

Current Through November 20, 1998
Environmental Management Commission
Raleigh, North Carolina

(g) Class GA Standards. Where not otherwise indicated, the standard refers to the total concentration in milligrams per liter of any constituent in a dissolved, colloidal or particulate form which is mobile in groundwater. This does not apply to sediment or other particulate matter which is preserved in a groundwater sample as a result of well construction or sampling procedures.

- (1) acetone: 0.7
- (2) acrylamide (propenamide): 0.00001
- (3) arsenic: 0.05
- (4) barium: 2.0
- (5) benzene: 0.001
- (6) boron: 0.32
- (7) bromoform (tribromomethane): 0.00019
- (8) butylbenzyl phthalate: 0.10
- (9) cadmium: 0.005
- (10) carbofuran: 0.036
- (11) carbon tetrachloride: 0.0003
- (12) chlordane: 2.7×10^{-5}
- (13) chloride: 250.0
- (14) chlorobenzene: 0.05
- (15) chloroform (trichloromethane): 0.00019
- (16) 2-chlorophenol: 0.0001
- (17) chromium: 0.05
- (18) cis-1,2-dichloroethene: 0.07
- (19) coliform organisms (total): 1 per 100 milliliters
- (20) color: 15 color units
- (21) copper: 1.0
- (22) cyanide: 0.154
- (23) 2, 4-D (2,4-dichlorophenoxy-acetic acid): 0.07
- (24) 1,2-dibromo-3-chloropropane: 2.5×10^{-5}
- (25) dichlorodifluoromethane (Freon-12; Halon): 1.4
- (26) 1,1 dichloroethane: 0.7
- (27) 1,2-dichloroethane (ethylene dichloride): 0.00038
- (28) 1,1-dichloroethylene (vinylidene chloride): 0.007
- (29) 1,2-dichloropropane: 0.00056
- (30) di-n-butyl (or dibutyl) phthalate (DBP): 0.7
- (31) diethylphthalate (DEP): 5.0
- (32) di(2-ethylhexyl) phthalate (DEHP): 0.003
- (33) di-n-octyl phthalate: 0.14
- (34) p-dioxane (1,4-diethylene dioxide): 0.007
- (35) dioxin: 2.2×10^{-10}
- (36) dissolved solids (total): 500
- (37) diundecyl phthalate (Santicizer 711): 0.14
- (38) endrin: 0.002
- (39) epichlorohydrin (1-chloro-2,3-epoxypropane): 0.00354
- (40) ethylbenzene: 0.029
- (41) ethylene dibromide (EDB; 1,2-dibromoethane): 4.0×10^{-7}
- (42) ethylene glycol: 7.0
- (43) fluorene: 0.28

- (44) fluoride: 2.0
- (45) foaming agents: 0.5
- (46) gross alpha (adjusted)particle activity (excluding radium-226 and uranium): 15 pCi/l
- (47) heptachlor: 8.0×10^{-6}
- (48) heptachlor epoxide: 4.0×10^{-6}
- (49) heptane: 2.1
- (50) hexachlorobenzene (perchlorobenzene): 0.00002
- (51) n-hexane: 0.42
- (52) iron: 0.3
- (53) lead: 0.015
- (54) lindane: 2.0×10^{-4}
- (55) manganese: 0.05
- (56) mercury: 0.0011
- (57) metadichlorobenzene (1,3-dichlorobenzene): 0.62
- (58) methoxychlor: 0.035
- (59) methylene chloride (dichloromethane): 0.005
- (60) methyl ethyl ketone (MEK; 2-butanone): 0.17
- (61) methyl tert-butyl ether (MTBE): 0.2
- (62) naphthalene: 0.021
- (63) nickel: 0.1
- (64) nitrate: (as N) 10.0
- (65) nitrite: (as N) 1.0
- (66) orthodichlorobenzene (1,2-dichlorobenzene): 0.62
- (67) oxamyl: 0.175
- (68) paradichlorobenzene (1,4-dichlorobenzene): 0.075
- (69) pentachlorophenol: 0.0003
- (70) pH: 6.5 - 8.5
- (71) phenanthrene: 0.21
- (72) phenol: 0.30
- (73) radium-226 and radium-228 (combined): 5 pCi/l
- (74) selenium: 0.05
- (75) silver: 0.018
- (76) styrene (ethenylbenzene): 0.1
- (77) sulfate: 250.0
- (78) tetrachloroethylene (perchloroethylene; PCE): 0.0007
- (79) toluene (methylbenzene): 1.0
- (80) toxaphene: 3.1×10^{-5}
- (81) 2, 4, 5,-TP (Silvex): 0.05
- (82) trans-1,2-dichloroethene: 0.07
- (83) 1,1,1-trichloroethane (methyl chloroform): 0.2
- ~~(84)~~ trichloroethylene (TCE): 0.0028
- (85) trichlorofluoromethane: 2.1
- (86) vinyl chloride (chloroethylene): 1.5×10^{-5}
- (87) xylenes (o-, m-, and p-): 0.53
- (88) zinc: 2.1

(h) Class GSA Standards. The standards for this class shall be the same as those for Class GA except as follows:

- (1) chloride: allowable increase not to exceed 100 percent of the natural quality concentration.
- (2) total dissolved solids: 1000 mg/l.
- (i) Class GC Waters.
 - (1) The concentrations of substances which, at the time of classification exceed the standards applicable to Class GA or GSA groundwaters shall not be caused to increase, nor shall the concentrations of other substances be caused to exceed the GA or GSA standards as a result of further disposal of contaminants to or beneath the surface of the land within the boundary of the area classified GC.
 - (2) The concentrations of substances which, at the time of classification, exceed the standards applicable to GA or GSA groundwaters shall not be caused to migrate as a result of activities within the boundary of the GC classification, so as to violate the groundwater or surface water quality standards in adjoining waters of a different class.
 - (3) Concentrations of specific substances, which exceed the established standard at the time of classification, shall be listed in Section .0300 of this Subchapter.

History Note: Statutory Authority G.S. 143-214.1; 143B-282(a)(2);
Eff. June 10, 1979;
Amended Eff. November 1, 1994; October 1, 1993; September 1, 1992;
August 1, 1989.

EXACT COPY
OF WHAT WAS
SENT TO STATE
11/10/87 10 A.M.

733-2178

Ref. 10

BATH BLDG

Room 213

306 NORTH WILMINGTON

SIDE OF LEGISLATIVE BLDG.
WHITE BLDG.

November 9, 1987

Mr. Jerry Rhodes
Solid and Hazardous Waste Management Branch
North Carolina Department of Human Resources
Division of Health Services
P. O. Box 2091
Raleigh, North Carolina 27602-2091

Dear Mr. Rhodes,

Perchloroethylene which is not an extremely hazardous substance was released during transfer from a delivery vehicle into a 3,000 gallon bulk storage tank at:

Westinghouse Electric Corporation
P. O. Box 9533
Raleigh, North Carolina 27611

The contacts at Westinghouse are Richard Walters, telephone (919) 834-5271, extension #225 and Mary Fox, telephone (919) 834-5271, extension #142..

The National Response Center and the State Emergency Response Division was notified of the spill.

No injuries were sustained. When the release was discovered, a bucket was placed under the overflow pipe to contain the material. Volume in the tank was then reduced by approximately 80 gallons by draining into the degreaser holding tanks. This stopped the overflow. Heavily saturated soil was removed in a 5 x 10' area to a depth of 1 1/2 - 2' and was placed in drums. The hole was then covered with plywood and a 25 x 25' area was covered with plastic to protect the area from the elements.

No injuries were sustained. Please see the attached MSDS regarding acute or chronic health risks.

Investigation is ongoing to determine actual volume of material lost. Ashland Chemical has yet to notify Westinghouse of the amount of material delivered. Fifteen hundred (1500) gallons were ordered but Ashland delivered an amount in excess of that number. A delivery of 1500 gallons would not have resulted in the overflow.

Bids are now being reviewed for the cleanup and a contractor selected expeditiously and assigned the attached remedial plan.

Sincerely,

Richard Walters
Purchasing Manager

November 9, 1987

REMEDIATION - PERCHLOROETHYLENE SPILL

WESTINGHOUSE - RALEIGH, NORTH CAROLINA

- TASK I Drain and clean tank. Cleaning to be done with high pressure (2500 psi) waher. Any sludge will be removed. Tank to be inspected for corrosion.
- TASK II Using hollowstem truck, mount auger, and splitspoon samples, take multiple (4-10) soil samples for determination of any vertical or horizontal contamination.
- TASK III Mobilize excavation and transport equipment for removal of contaminated soil. Recommended excavation limit to background air using a PID. Excavated soil to be transported as hazardous waste to GSX, Pinewood, SC, a chemical secure landfill.
- TASK IV After excavation, remaining surfaces to be samples and analyzed for perchloroethylene.
- TASK V When site is approved as "clean", excavated area will be backfilled and graded. Backfill to be clean and compacted to 90% to 95% field density. Backfill to be placed in 6" lifts and compacted to prevent settling in the event a tank pad is to be replaced. Shoring of excavation may be necessary to execute field compaction test.
- TASK VI Option for further use for perchloroethylene:
1. Use of drums to replace the tank.
 2. Installation of a concrete containment system, reinstallation of the tank, and procedural changes governing truck offloading including field inspection by Westinghouse before, during and after delivery.

Westinghouse
Electric Corporation

Measurements and
Control Division

Box 9533
Raleigh North Carolina 27611
919 834 5271

January 6, 1988

Mr. Larry Perry
Solid and Hazardous Waste Management Branch
North Carolina Department of Human Resources
Division of Health Services
P. O. Box 2091
Raleigh, North Carolina 27602-2091

Dear Larry,

Remediation of the perchloroethylene solvent spill has been completed per the work statement described in our 11/9/87 letter to your department. The excavated site was back-filled after inspection by the State. The area in which the contaminated material was stock piled was also inspected by the State after the material had been removed to the secure landfill in Pinewood, SC. The clean up was found to be satisfactory.

Please call me if you have any questions.

Sincerely,

Mary Fox

M. A. Fox
Environmental Control Officer

CC: Mr. Jerry Rhodes

A:EWMFLTR1.DOC

DEPARTMENT OF ENVIRONMENT, HEALTH and NATURAL RESOURCES
DIVISION OF SOLID WASTE MANAGEMENT
HAZARDOUS WASTE SECTION
ACTIVITY REPORT

Subject: ABB Power T & D Co., Inc.

NCD003195963

Location: Wake Date: 29 Apr 1996

Address: 2728 Capital Blvd. Time spent: 3.0

City: Raleigh State: NC Zip: 27604

By Whom: Mike Williford

Persons contacted: Tom Parker

Reason for visit: To conduct a closure inspection at the
ABB facility formerly located on Capital Blvd.

Copies to: Larry Perry

REPORT:

ABB Power T & D Company, Raleigh: To conduct a generator
closure inspection. A records review and walk-thru at
the former ABB site were conducted and it appears that
closure has been performed in accordance with 40 CFR
265.111 & 265.114.

Activity Type: Check Most Appropriate

1. Complaint _____
2. Emergency Response _____
3. Compliance Asst _____
4. Remedial Action _____
5. Presentation _____
6. Training _____
7. Meeting _____
8. Other X

Region IV CH&E Form - Side A

EPA ID: NC200395963

DATA ENTRY PERSONNEL

Submitted by: _____ Date: _____

Entered by: _____ Date: _____

Facility Name: ABB Power 740 Company, Inc City: Raleigh

EVALUATION DATA: New: ☒ Change: ☐ Delete: ☐ (☐ : Required)

Agency: S Date: Mo 02 / Day 18 / Year 94 Type: CEI Control Number Data Entry Personnel 21

Person: 022 BRANCH 07 REASON 11

Coverage Areas: (E: Evaluated NE: Not Evaluated NA: Not Applicable D: Del.)

Generators	
GBF	<input checked="" type="checkbox"/>
GER	<input checked="" type="checkbox"/>
GGR	<input checked="" type="checkbox"/>
GLB	<input checked="" type="checkbox"/>
GMR	<input checked="" type="checkbox"/>
GOR	<input checked="" type="checkbox"/>
GPT	<input checked="" type="checkbox"/>
GRR	<input checked="" type="checkbox"/>
GSC	<input checked="" type="checkbox"/>
GSO	<input checked="" type="checkbox"/>

Transporters	
TGR	<input type="checkbox"/>
TMR	<input type="checkbox"/>
TOR	<input type="checkbox"/>
TRR	<input type="checkbox"/>
TWD	<input type="checkbox"/>

USED OIL	
TUO	<input type="checkbox"/>
TFO	<input type="checkbox"/>
BUO	<input type="checkbox"/>
MUO	<input type="checkbox"/>
PUO	<input type="checkbox"/>
RUO	<input type="checkbox"/>

TSB's	
DBF	<input type="checkbox"/>
DCH	<input type="checkbox"/>
DCL	<input type="checkbox"/>
DCP	<input type="checkbox"/>
DFR	<input type="checkbox"/>
DGS	<input type="checkbox"/>
DGH	<input type="checkbox"/>
DIN	<input type="checkbox"/>

DLB	
DLF	<input type="checkbox"/>
DLT	<input type="checkbox"/>
DHC	<input type="checkbox"/>
DMR	<input type="checkbox"/>
DOR	<input type="checkbox"/>
DOT	<input type="checkbox"/>

DPB	
DPF	<input type="checkbox"/>
DSI	<input type="checkbox"/>
DTR	<input type="checkbox"/>
DTT	<input type="checkbox"/>
DWP	<input type="checkbox"/>

COMPLIANCE SCHEDULE (TSD, GEN, TRANS.)
FEA ☐ CAS ☐

Evaluation Comments: (72) 1:

2:

VIOLATION DATA: New: ☐ Change: ☐ Delete: ☐

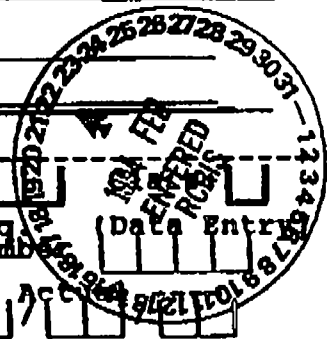
Agency: ☐ Type: ☐ Date (mdy): ☐/ ☐/ ☐ Determined: ☐/ ☐/ ☐ Priority: ☐ Branch: ☐ Person: ☐ Seq. Number: ☐ (Data Entry) Return to Compliance: ☐ Scheduled: ☐ Actual: ☐ Reg. Type: ☐ Reg. Description (30): _____ Comment (72): _____

Agency: ☐ Type: ☐ Date (mdy): ☐/ ☐/ ☐ Determined: ☐/ ☐/ ☐ Class: ☐ Priority: ☐ Branch: ☐ Person: ☐ Seq. Number: ☐ (Data Entry) Return to Compliance: ☐ Scheduled: ☐ Actual: ☐ Reg. Type: ☐ Reg. Description (30): _____ Comment (72): _____

Agency: ☐ Type: ☐ Date (mdy): ☐/ ☐/ ☐ Determined: ☐/ ☐/ ☐ Class: ☐ Priority: ☐ Branch: ☐ Person: ☐ Seq. Number: ☐ (Data Entry) Return to Compliance: ☐ Scheduled: ☐ Actual: ☐ Reg. Type: ☐ Reg. Description (30): _____ Comment (72): _____

Continue violation data

if necessary -



RCRA INSPECTION REPORT

- 1) Facility Name: ABB Power T+D Company, Inc.
ID Number: NCD003195963
Type of facility: Generator
Ownership: same
Contact: Tommy Parker
Phone number: (919) 834-5271
Facility location (address): 2728 Capital Blvd.
City, state, zip: Raleigh, N.C. 27604
- 2) Survey Participants: Tommy Parker Michael Will. Hill
Bobby Watson
- 3) Date of Inspection: 2/18/94
- 4) Purpose of Inspection: Ensure compliance with 40CFR Parts 261, 262, 265, & 268.
- 5) Facility Description: ABB manufactures watt hour meters.
Processes: Waste Perchloroethylene from degreasing operation - F001, D037
Waste water treatment sludge from electroplating operation - F006
Flammable, spent solvents from painting process; cleanup of
stamp-peddicks - D018, D035, F003, F008
Type Waste: Phosphate sludge from tank cleanup of Electro Paint System - D002
Waste Genesolv 2000 from cleaning + lubricating of parts - F002
Transporters: M+M Chemical Co. ACD 070513767
Dart Trucking Co. DHD 009865825
Environmental Transfer Corp. NSD 991291584
TSD's: M+M Chemical + Equipment Co., Inc. ACD 070513767
Cryosystem Inc. MEI 0098011992
AETC NCD 98616638
Accumulation areas: Boiler Room Tool Room
Dept. N
Dept. K
Waste Water Treatment Plant
Storage areas: Waste Water Treatment Plant
Drum Accumulation cage northwest side of Facility

Facility Name: ARB Power F&D Company, Inc.
ID #: 120 003195963

6) Waste Minimization:

Source Reduction: Spill + Leak Prevention

7) Site Deficiencies:

Facility is in compliance with applicable LCA A Regulations.

8) Recommendations:

NONE

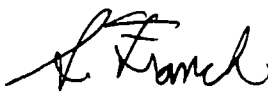
Signed:

Michael A. Wilgus
Inspector/Reviewer
2/18/94
Date

A. P. [Signature]
Facility Contact
2/18/94

MEMORANDUM

TO: File

FROM: S. Franch, Environmental Chemist,
NC Superfund 

DATE: May 13, 1998

SITE: Westinghouse Electric Meter and Light Division
NCD 003 195 963 (Raleigh, Wake County)

This site currently supports the Parker-Lincoln Building that houses DENR divisions. The surface impoundment and landfill were closed under the RCRA program in 1986. Please see the Superfund State File regarding a PCE spill clean-up in 1990. This site had been deferred to the RCRA program in the mid 1980s since it was an active facility.